

\*\*\*\*\*STN Columbus \*\*\*\*\*

FILE HOME' ENTERED AT 13:51:33 ON 25 JUL 2000

=> file medline

COST IN U.S. DOLLARS	ENTRY	SESSION	SINCE FILE	TOTAL
FULL ESTIMATED COST	0.15	0.15		

FILE MEDLINE' ENTERED AT 13:52:00 ON 25 JUL 2000

FILE LAST UPDATED: 20 JUL 2000 (20000720/UP). FILE  
COVERS 1960 TO DATE.

MEDLINE has been reloaded to reflect the annual MeSH changes  
made by the National Library of Medicine for 2000. Enter HELP RLOAD for  
details.

OLD MEDLINE, data from 1960 through 1965 from the Cumulated  
Index Medicus (CIM), has been added to MEDLINE. See HELP  
CONTENT for details.

Left, right, and simultaneous left and right truncation are available in  
the Basic Index. See HELP SFIELDS for details.

THIS FILE CONTAINS CAS REGISTRY NUMBERS FOR EASY  
AND ACCURATE SUBSTANCE IDENTIFICATION.

=> breeding/ab,bi

BREEDING IS NOT A RECOGNIZED COMMAND  
The previous command name entered was not recognized by the  
system.  
For a list of commands available to you in the current file, enter  
"HELP COMMANDS" at an arrow prompt (=>).

=> s breeding/ab,bi

16359 BREEDING/BI
5361026 AB/FA
8963 BREEDING/AB
(BREEDING/BI (L) AB/FA)
16359 BREEDING/BI
L1 16359 BREEDING/AB,BI

=> s ll and balb7/ab,bi

69950 BALB7/BI
5361026 AB/FA
22759 BALB7/AB

(BALB7/BI (L) AB/FA)
69950 BALB7/BI
L2 139 L1 AND BALB7/AB,BI

=> s l2 and trait#/ab,bi

25416 TRAIT#/BI
5361026 AB/FA
20788 TRAIT#/AB
(TRAIT#/BI (L) AB/FA)
25416 TRAIT#/BI
L3 5 L2 AND TRAIT#/AB,BI

=> d l- bib ab

YOU HAVE REQUESTED DATA FROM 5 ANSWERS -  
CONTINUE? Y(N)Y

L3 ANSWER 1 OF 5 MEDLINE  
AN 1999178270 MEDLINE  
DN 99178270

TI High-resolution mapping of quantitative \*\*\*trait\*\*\* loci in  
outbred mice.

AU Talbot C J; Nicod A; Cherny S S; Fulkner D W; Collins A C;  
Flint J  
CS Institute of Molecular Medicine, John Radcliffe Hospital, Oxford,  
UK  
SO NATURE GENETICS, (1999 Mar) 21 (3) 305-8.  
Journal code: BRO. ISSN: 1061-4036.

CY United States  
DT Journal; Article; (JOURNAL ARTICLE)

LA English  
FS Priority Journals  
EM 199906

EW 19990601  
AB Screening the whole genome of a cross between two inbred  
animal strains  
has proved to be a powerful method for detecting genetic loci  
underlying quantitative behavioural \*\*\*traits\*\*\*, but the level of resolution  
offered by quantitative \*\*\*trait\*\*\* loci (QTL) mapping is still  
too

coarse to permit molecular cloning of the genetic determinants. To  
achieve high-resolution mapping, we used an outbred stock of mice for  
which the entire genealogy is known. The heterogeneous stock (HS) was  
established 30 years ago from an eight-way cross of C57BL/6, \*\*\*BALB\*\*\* /c,  
RIL, AKR,  
DBA/2, 1, A/J and C3H inbred mouse strains. At the time of the  
experiment reported here, the HS mice were at generation 58, theoretically  
offering at least a 30-fold increase in resolution for QTL mapping compared

with a backcross or an F2 intercross. Using the HS mice we have mapped  
a QTL influencing a psychological \*\*\*trait\*\*\* in mice to a 0.8-cM  
interval on chromosome 1. This method allows simultaneous fine mapping  
of multiple QTLs, as shown by our report of a second QTL on chromosome 12.  
The high resolution possible with this approach makes QTLs accessible to  
positional cloning.

L3 ANSWER 2 OF 5 MEDLINE  
AN 97124847 MEDLINE  
DN 97124847

TI Frequent DNA polymorphisms exist in inbred CBA/J and  
C3H/HeN mice.

AU Yuan B; Shum-Siu A; Lentsch E M; Hu L H; Hendler F J  
CS Department of Biochemistry, J. Graham Brown Cancer Center,  
University of Louisville, Kentucky 40292, USA.  
SO GENOMICS, (1996 Nov 15) 38 (1) 58-71.  
Journal code: GEN. ISSN: 0888-7543.

CY United States  
DT Journal; Article; (JOURNAL ARTICLE)

LA English  
FS Priority Journals

OS GENBANK-M21390; GENBANK-V00829;  
GENBANK-X01799; GENBANK-Y00309;  
GENBANK-D00439; GENBANK-M34098; GENBANK-X14061;  
GENBANK-M84387;  
GENBANK-M36332; GENBANK-X13781; GENBANK-M26284;  
GENBANK-M12099;  
GENBANK-M22065; GENBANK-M17922; GENBANK-X07197;  
GENBANK-X56007;  
GENBANK-M31941; GENBANK-X06856; GENBANK-S69706;  
GENBANK-X07439;  
GENBANK-M24410; GENBANK-A01690; GENBANK-J03820;  
GENBANK-X05064;  
GENBANK-X03020; GENBANK-M25149; GENBANK-X06762;  
GENBANK-X02801

EM 199705

EW 19970504

AB Although occasional DNA polymorphisms have been observed in  
inbred mice,

CBA/J and C3H/HeN mice have two microsatellite alleles at over  
1/3 of microsatellite loci tested. Since DNA polymorphisms were not  
detected in DBA/2J, C57BL/6J, and \*\*\*BALB\*\*\* /cJ, the frequency of  
microsatellite polymorphisms appears to be strain specific. Thus, genetic studies  
in inbred mice require testing for preexisting polymorphisms. The  
polymorphisms detected in CBA/J mice appear to be stable and do  
not

represent microsatellite instability or a mutator phenotype. Somatic mosaicism was not observed and no more than two alleles were detected per locus. CBA/J propagated only by brother-sister mating maintained eight polymorphisms over 5 years. These data suggest that the polymorphisms are due to an inherited \*\*\*trait\*\*\* and that the pattern of inheritance is not due to Mendelian distribution. As \*\*\*breeding\*\*\* analysis was not performed, the pattern of allelic inheritance is unknown.

L3 ANSWER 3 OF 5 MEDLINE  
AN 95361094 MEDLINE  
DN 95361094  
TI Genetic susceptibility to papilloma progression in SENCAR mice.  
AU Stern M C; Gimenez-Conti I B; Conti C J  
CS Department of Carcinogenesis, University of Texas M.D. Anderson Cancer Center, Smithville, USA.  
NC CA53123 (NCI)  
CA57596 (NCI)

SO CARCINOGENESIS, (1995 Aug) 16 (8) 1947-53.  
Journal code: CPT. ISSN: 0143-3334.

CY ENGLAND: United Kingdom  
DT Journal; Article; (JOURNAL ARTICLE)  
LA English  
FS Priority Journals; Cancer Journals  
EM 199511

AB Previous results showed that in an inbred line (SSIN) derived from outbred SENCAR mice there is a dissociation between susceptibility to papilloma development and the malignant conversion of these into squamous cell carcinomas (SCC). To extend this conclusion, we designed an interstrain \*\*\*breeding\*\*\* experiment using the two-step carcinogenesis protocol in order to study the susceptibility to tumor progression of F1 offspring.

The strains used were SSIN, \*\*\*BALB\*\*\* /c, both known for their resistance to papilloma progression, and SENCAR. Both the SSIN and SENCAR X SSIN F1s showed a promotion sensitivity similar to that of the SSIN mice. This behavior was also seen in the SSIN X (SSIN and SSIN X (SENCAR X SSIN) backcrossed animals, suggesting that susceptibility to 12-O-tetradecanoylphorbol-13-acetate promotion under these protocol conditions is inherited as a dominant \*\*\*trait\*\*\*.

The \*\*\*BALB\*\*\* /c X SENCAR F1s showed an average response

that was intermediate between the two parental strains/stocks. Regarding the progression, all F1s showed a cumulative number of SCCs similar to the SENCAR progenitor. We also investigated the previously described switch of keratin 1 to 13 as a marker of premalignant progression, which is significantly delayed in SSIN mice compared with SENCAR mice. The SSIN X SENCAR F1s expressed this switch in a way similar to the SENCAR mice.

These findings suggest that susceptibility to tumor progression is inherited as a dominant autosomal \*\*\*trait\*\*\*. The putative gene(s) that confers susceptibility is present in the SENCAR stock and was probably lost in the selection and inbreeding of the SSIN mice.

L3 ANSWER 4 OF 5 MEDLINE  
AN 84214114 MEDLINE  
DN 84214114  
TI Susceptibility of inbred mice to Leishmania tropica infection: genetic control of the development of cutaneous lesions in P/J mice.  
AU Fortier A H; Melitzer M S; Nacy C A  
SO JOURNAL OF IMMUNOLOGY, (1984 Jul) 133 (1) 454-9.  
Journal code: IFB. ISSN: 0022-1767.

CY United States  
DT Journal; Article; (JOURNAL ARTICLE)  
LA English  
FS Abridged Index Medicus Journals; Priority Journals; Cancer Journals  
EM 198409

AB Leishmania tropica infections of P/J mice are characterized by the development of progressive nonhealing cutaneous lesions, followed by visceral metastases to liver and spleen. To analyze the genetic control of this disease, we produced F1, backcross (BX), and F2 progeny by \*\*\*breeding\*\*\* susceptible P/J mice with L. tropica-resistant C3H/HeN mice. Infections in these hybrid animals suggested that genetic control of the cutaneous lesion was by a single, autosomal, dominant gene.

Resistance was the dominant \*\*\*trait\*\*\*. Analysis of liver and spleen smears in these animals, however, indicated that development of the cutaneous lesion segregates independently of the second component of L. tropica infections, systemic disease.

L3 ANSWER 5 OF 5 MEDLINE  
AN 77005234 MEDLINE  
DN 77005234  
TI Inherited resistance to Corynebacterium kutscheri in mice.  
AU Hirst R G; Wallace M E

AB Inbred mice of the strain C57BL/6J (B6) and their F1 progeny with C3H/HeJ (H) mice were examined for resistance to Corynebacterium kutscheri. The B6 mice were found to be resistant to the infection, while the H mice were susceptible. The F1 mice were found to be resistant, indicating that resistance to the infection is inherited as a dominant trait.

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SO INFECTION AND IMMUNITY, (1976 Aug) 14 (2) 475-82.  
Journal code: G07. ISSN: 0019-9567.

CY United States  
DT Journal; Article; (JOURNAL ARTICLE)  
LA English  
FS Priority Journals  
EM 197701

AB An analysis of the factors responsible for inherited resistance to Corynebacterium kutscheri was undertaken. Various inbred mouse strains were examined; these included the Swiss Lynch and C57BL/6 mice, their F1 and F2 progeny, and the progeny of the F1 backcrossed to each parent strain. Two modes of inherited resistance are described. An examination suggested that resistance as measured by the mean lethal dose of C. kutscheri was under polygenic control and was inherited continuously.

However, the efficiency with which C. kutscheri was eliminated by the mononuclear phagocyte cells of the liver over 3 days differed markedly among strains. A genetic analysis of this mononuclear phagocyte microbicidal efficiency (MPME) in Swiss Lynch and C57BL/6 mice was undertaken. The \*\*\*trait\*\*\*, MPME, was present, but did not segregate, in the F1 progeny or in the progeny of the backcross to the resistant C57BL/6 parent; this was clear evidence of dominance. Moreover, MPME segregated in a ratio of 1:1 in the progeny of the backcross to the sensitive Swiss Lynch parent and in a ratio of 3:1 in the F2 progeny.

It was concluded that MPME was inherited discontinuously and was controlled by a single dominant autosomal gene (or closely linked group); the recessive allele was assigned the gene symbol *ack*. Linkage experiments showed there to be no association between the *ack* locus and any of the immune-response genes.

=> s rheumatoid arthritis/ab,bi  
62441 RHEUMATOID/BI  
84571 ARTHRITIS/BI  
5361026 AB/FA  
23124 RHEUMATOID ARTHRITIS/AB  
((RHEUMATOID(W)ARTHRITIS)BI (L) AB/FA)

62441 RHEUMATOID/BI  
84571 ARTHRITIS/BI  
35308 RHEUMATOID ARTHRITIS/BI  
((RHEUMATOID(W)ARTHRITIS)BI)

L4 35308 RHEUMATOID ARTHRITIS/AB,BI

=> s 14 and breed?/ab,bi

24083 BREED?/BI  
5361026 AB/FA

16681 BREED?/AB  
(BREED?/BI (L) AB/FA)

24083 BREED?/BI  
L5 9 L4 AND BREED?/AB,BI

=> d 1-bib ab

YOU HAVE REQUESTED DATA FROM 9 ANSWERS -  
CONTINUE? Y(N)/Y

L5 ANSWER 1 OF 9 MEDLINE  
AN 1999142388 MEDLINE  
DN 99142388

TI Organization of the canine major histocompatibility complex:  
current perspectives.

AU Wagner J L, Bumett R C, Storb R

CS Fred Hutchinson Cancer Research Center, Program in

Transplantation

Biology, Seattle, WA 98109-1024, USA.

NC CA31787 (NCI)

CA18221 (NCI)

RR12558 (NCRR)

+

SO JOURNAL OF HEREDITY, (1999 Jan-Feb) 90 (1) 35-8. Ref:  
29

Journal code: IC7. ISSN: 0022-1503.

CY United States

DT Journal: Article; (JOURNAL ARTICLE)

General Review; (REVIEW)

(REVIEW, TUTORIAL)

LA English

FS Priority Journals

EM 199905

EW 19990503

AB The dog is a valuable model for studying several human diseases  
as well as

one of the most important models for organ transplantation.

Important to

understanding the pathophysiology or development of some of

these diseases

is an understanding of the canine major histocompatibility complex

(MHC)

or dog leukocyte antigen (DLA). Initial characterization of the

DLA

involved primarily cellular, serological, and biochemical analyses.

Later

a molecular analysis of the DLA region was begun. There are at

least four

complete class I genes: DLA-88, DLA-12, DLA-64, and DLA-79.

DLA-88 is

highly polymorphic, with more than 40 alleles obtained from an

examination

of 50 mixed \*\*\*breed\*\*\* dogs. The other class I loci are less  
polymorphic, with fewer than 12 alleles each. In the class II region  
there

is one complete DRB gene called DLA-DRB1 with at least 24  
alleles and one

full-length DQB gene, DLA-DQB1, with 20 alleles characterized to  
date.

DLA-DQA is less polymorphic with nine alleles and DLA-DRA  
appears

monomorphic. Two highly polymorphic canine microsatellite  
markers, one

located in the class I region and one located in the class II region,  
can

be used to identify DLA-matched and -mismatched dogs within  
families for

organ transplantation experiments. Future projects include mapping  
the DLA

region by pulsed-field gel electrophoresis and using a recently  
constructed canine bacterial artificial chromosome (BAC) library to

search

for new genes within the DLA. The dog has been a useful model  
for

understanding several human diseases such as gluten-sensitive  
enteropathy

(Hall and Batt 1990), \*\*\*rheumatoid\*\*\*

\*\*\*arthritis\*\*\*

(Halliwell

et al. 1972), narcolepsy (Tafti et al. 1996), and systemic lupus

erythematosus (Lewis and Schwartz 1971, Tetchner et al. 1990), as

well as

an important model for solid organ and hematopoietic stem cell  
transplantation (Storb and Deeg 1985). Much of the impetus behind

efforts

to characterize the canine MHC comes from its importance in  
transplantation. In spite of the dog's importance in studying human

disease and in immunology, molecular analysis of the DLA has  
lagged behind

that of the mouse and human as well as several agricultural animals.

L5 ANSWER 2 OF 9 MEDLINE

AN 97376834 MEDLINE

DN 97376834

TI High affinity rheumatoid factor transgenic B cells are eliminated  
in

normal mice.

AU Wang H, Shlomchik M J

CS Department of Laboratory Medicine, Yale University School of  
Medicine, New

Haven, CT 06520, USA.

NC P01 AI/AR36329 (NIAID)

SO JOURNAL OF IMMUNOLOGY, (1997 Aug 1) 159 (3) 1125-34.

Journal code: IFB. ISSN: 0022-1767.

CY United States

DT Journal: Article; (JOURNAL ARTICLE)

LA English

FS Abridged Index Medicus Journals; Priority Journals; Cancer

Journals

EM 199710

EW 19971003

AB Although systemic autoimmune diseases can be accompanied by  
multiple

autoantibodies, certain specificities are dominant. Presumably,

these

specificities and their cognate Ags have properties that make them  
particularly amenable to autoimmune induction. Rheumatoid

factors (RFs)

are a dominant class of autoantibodies in \*\*\*rheumatoid\*\*\*  
\*\*\*arthritis\*\*\* and certain other autoimmune syndromes. To

study the

regulation of RFs in normal and autoimmune animals, we

previously created

a RF Ig transgenic model based on an RF isolated from an

autoimmune

MRL/lpr mouse. Using this model, called AM14, we were

surprised to find

that normal mice do not regulate disease-related RF B cells. This

raised

the question of whether RFs in general are not susceptible to

tolerance

induction, perhaps due to the unique properties of serum IgG and

its FcRs.

Alternatively, RFs can be tolerized, and the disease-related RFs are

below

the affinity threshold for such tolerance. To distinguish these

possibilities, we generated a second RF transgenic model with the

same

specificity but much higher affinity than AM14. We found that, in

contrast

to AM14, high affinity RF B cells are subject to central tolerance,

showing that there is not an absolute defect in RF B cell tolerance,

but,

rather, that RF B cell tolerance is affinity dependent even in normal

animals. This is also the first model in which a disease-related

specificity has been shown clearly to delete in a system in which

Ag-positive and negative mice can be produced and compared.

L5 ANSWER 3 OF 9 MEDLINE

AN 95142883 MEDLINE

DN 95142883

TI The viable motheaten (mev) mouse—a new model for arthritis.

AU Kovark J, Kuntz L, Ryffel B, Borel J F

CS Immunology Department, Sandoz Pharma Ltd, Basel,

Switzerland.

SO JOURNAL OF AUTOIMMUNITY, (1994 Oct) 7 (5) 575-88.

Journal code: ADL. ISSN: 0896-8411.

CY ENGLAND: United Kingdom

DT Journal: Article; (JOURNAL ARTICLE)

LA English

FS Priority Journals

EM 199505

AB Homozygous mev mice are first identified at the age of 3-4 days

by focal

depigmentation of the skin, followed by patchy absence of hair and

by necrotic lesions on paws, tail and ears. Of particular interest are the inflammatory reactions in the paws of these animals which consist mainly of polymorphonuclear and mononuclear cell infiltration in the subcutaneous tissue extending to the periosteum and joint, resulting in focal destructive arthritis and osteomyelitis. These lesions are to some extent reminiscent of an acute form of rheumatoid-like arthritis. Since meV mice are sterile, a limited number of symptomatic offspring can be obtained by cross-\*\*\*breeding\*\*\* their heterozygous siblings which are phenotypically not distinguishable from mice lacking this mutation. In order to produce a sufficient number of diseased animals for performing pharmacological studies, we have established a model by transferring this disease in lethally irradiated, 8- to 10-week-old syngeneic mice which were grafted with meV spleen cells. Such reconstituted recipients develop first inflammatory symptoms of the paws 2 to 3 weeks after cell transfer. The arthritic inflammation finally affects all paws and toes by 30 to 50 days. This procedure increased the number of meV-like mice expressing arthritis, allowing assessment of the effects of standard reference drugs used in the therapy of \*\*\*rheumatoid\*\*\* \*\*\*arthritis\*\*\* (RA). The immunosuppressants cyclosporin and rapamycin and the steroid dexamethasone at therapeutic concentrations exert a strong inhibitory effect on the development of arthritis in this novel model. In contrast, the non-steroidal anti-inflammatory drug phenylbutazone shows only a moderate effect. These results indicate the particular sensitivity of this model for efficacy of potentially new therapeutic but non-cytostatic compounds for clinical use.

L5 ANSWER 4 OF 9 MEDLINE  
AN 93375854 MEDLINE  
DN 93375854  
TI Magnetic resonance microscopy in rat skeletal research.  
AU Kapadia R D; High W B; Soulefeld H A; Bertolini D; Sarkar S K  
CS Department of Physical & Structural Chemistry, SmithKline Beecham Pharmaceuticals, King of Prussia, Pennsylvania.  
SO MAGNETIC RESONANCE IN MEDICINE, (1993 Aug) 30 (2) 247-50.  
Journal code: MHR. ISSN: 0740-3194.

CY United States  
DT Journal; Article; (JOURNAL ARTICLE)  
LA English  
FS Priority Journals  
EM 199312  
AB Noninvasive evaluation of skeletal tissue, particularly certain sites that tend to be predisposed to disease, is critical in understanding the pathogenesis, progression, and successful treatment of various diseases like osteoporosis, \*\*\*rheumatoid\*\*\* \*\*\*arthritis\*\*\*, and osteoarthritis. Although several noninvasive techniques are currently available to evaluate skeletal tissues, they all have critical limitations. We report here a systematic study to compare the morphological changes (overall profile and tissue architecture) in the proximal tibiae and coccygeal vertebrae of a young growing rat and an older retired female \*\*\*breeder\*\*\* rat using 2- and 3-dimensional MR (magnetic resonance) microscopy and histology. We have obtained MR microimages of intact rat tibiae and vertebrae with resolution upto 24 24 250 microns and have found excellent correlations between MR microscopy results and histological assessment.

L5 ANSWER 5 OF 9 MEDLINE  
AN 91224865 MEDLINE  
DN 91224865  
TI Juvenile-onset polyarthritis syndrome in Akita.  
AU Dougherty S A; Center S A; Shaw E E; Erb H A  
CS Department of Clinical Science, New York State College of Veterinary Medicine, Cornell University, Ithaca 14853-6401.  
SO JOURNAL OF THE AMERICAN VETERINARY MEDICAL ASSOCIATION, (1991 Mar 1) 198 (5) 849-56.  
Journal code: HAV. ISSN: 0003-1488.  
CY United States  
DT Journal; Article; (JOURNAL ARTICLE)  
LA English  
FS Priority Journals  
EM 199108  
AB Two young Akitas were examined because of manifestation of a juvenile-onset form of polyarthritis. A search of medical records at the New York State College of Veterinary Medicine found 6 more similarly affected Akitas. The clinical manifestations were marked by cyclic febrile illness and signs of profound joint-related pain. Two dogs had concurrent aseptic meningitis. The syndrome resembles juvenile \*\*\*rheumatoid\*\*\*

\*\*\*arthritis\*\*\* in human beings, although it shares features with systemic lupus erythematosus. Pedigree analysis of affected Akitas supported a heritable component to the syndrome. Treatment with immunosuppressive drugs was effective in 2 dogs that achieved complete remission, and in 2 dogs that achieved only partial remission. Classification of this syndrome is difficult and may represent an "overlap" syndrome commonly described in human beings.

L5 ANSWER 6 OF 9 MEDLINE  
AN 86193107 MEDLINE  
DN 86193107  
TI Update on ibuprofen: review article.  
AU Bussan M  
SO JOURNAL OF INTERNATIONAL MEDICAL RESEARCH, (1986) 14 (2) 53-62. Ref: 58  
Journal code: E62. ISSN: 0300-0605.  
CY ENGLAND: United Kingdom  
DT (CLINICAL TRIAL)  
Journal; Article; (JOURNAL ARTICLE)  
General Review; (REVIEW)  
LA English  
FS Priority Journals  
EM 198608  
AB Non-steroidal anti-inflammatory drugs (NSAIDs) have become the principal mode of therapy for rheumatic diseases and their use has continued to increase despite concern expressed recently regarding potential hazards (Figure 1). Prior to 1969, a limited number of NSAID drugs were available. Aspirin and indomethacin became the mainstay of treatment but tolerability, particularly gastric irritation, at doses necessary to control rheumatic symptoms limited the usefulness of these valuable agents. The pyrazolone, phenylbutazone, showed slightly better gastro-intestinal (GIT) tolerability but has since been associated with an increased risk of blood dyscrasias and is now only available for restricted use in most countries. Ibuprofen was the first of a new \*\*\*breed\*\*\* of NSAIDs originally introduced into the United Kingdom in 1969. Chemically quite distinct from its forerunners it was the first of the propionic acid derivatives to be used in rheumatic practice. The propionics have since become the largest, single and most important group of NSAIDs accounting for 50% of NSAID prescriptions in the United Kingdom. It is estimated that over 100 million patients worldwide have received ibuprofen which is now available in over 100 countries throughout the world including all the major markets. Ibuprofen was developed directly as a result of the problems associated with the use of corticosteroids in

the treatment of \*\*\*rheumatoid\*\*\* \*\*\*arthritis\*\*\* and also because of the gastro-intestinal irritation and general intolerance of the established NSAIDs, at that time. Ibuprofen was readily accepted because, unlike the previous drugs, its therapeutic efficacy was easily seen to outweigh the severity of its side-effects. Ibuprofen was the first new drug with the potency of aspirin but without its major disadvantages.

L5 ANSWER 7 OF 9 MEDLINE  
AN 85225766 MEDLINE  
DN 85225766

TI Induction of chronic polyarthritis in rabbits by hyperimmunization with *Escherichia coli*. I. Pathologic and serologic features in two \*\*\*breeds\*\*\* of rabbits.

AU Aoki S, Ikuta K, Nonogaki T, Ito Y  
SO ARTHRITIS AND RHEUMATISM, (1985 May) 28 (5) 522-8  
Journal code: 90M. ISSN: 0004-3591.

CY United States

DT Journal; Article; (JOURNAL ARTICLE)

LA English

FS Abridged Index Medicus Journals; Priority Journals

EM 198509

AB Hyperimmunization of 147 rabbits (outbred Japanese white rabbits and New Zealand white [NZW] rabbits bred in a closed colony) with

heat-killed *Escherichia coli* 0:14 in Freund's incomplete adjuvant resulted in

the animals developing a chronic polyarthritis resembling \*\*\*rheumatoid\*\*\*

\*\*\*arthritis\*\*\* (RA). While both Japanese white and NZW rabbits showed a

high incidence of the induced arthritis, a higher proportion of NZW rabbits developed the disease, suggesting that genetic influence is important in the development of RA-like illness. This experimental model may be useful for the study of RA.

L5 ANSWER 8 OF 9 MEDLINE

AN 76259841 MEDLINE

DN 76259841

TI Noninfectious canine arthritis: \*\*\*rheumatoid\*\*\*

\*\*\*arthritis\*\*\*

AU Pedersen N C, Castles J J, Weisner K

SO JOURNAL OF THE AMERICAN VETERINARY MEDICAL ASSOCIATION, (1976 Aug 1) 169

(3) 295-303.

Journal code: HAV. ISSN: 0003-1488.

CY United States

DT Journal; Article; (JOURNAL ARTICLE)

LA English

FS Priority Journals

EM 197612  
AB Chronic unremitting, generally symmetric, erosive polyarthritis was studied in 8 dogs. The disease had clinical, serologic, radiographic, and

pathologic changes similar to those of \*\*\*rheumatoid\*\*\*

\*\*\*arthritis\*\*\* of man. The condition occurred mainly in

smaller \*\*\*breeds\*\*\* of dogs, with time of onset from 8 months to 8

years of age. Characteristic radiographic changes were seen in the joints

several weeks to several months after the appearance of the initial

lameness. Synovial fluid contained an increased number of neutrophils, and

synovial fluid and synovial tissues were sterile for anaerobic and aerobic

bacteria, mycoplasma, chlamydia, and viruses. Corticosteroids were

therapeutically ineffective in all of the cases; however, corticosteroids,

cyclophosphamide, and azathioprine were effective when used in

combination in several dogs.

L5 ANSWER 9 OF 9 MEDLINE

AN 76201375 MEDLINE

DN 76201375

TI [The significance of immunologic phenomena in pulmonary diseases of

children (author's trans)]

Die Bedeutung immunpathologischer Vorgänge für kindliche

Lungenerkrankungen.

AU Weingartner L

SO ZEITSCHRIFT FÜR ERKRANKUNGEN DER

ATMUNGSORGANE, (1975 Jan) 142 (1) 18-29.

Journal code: XTN

CY GERMANY, EAST: German Democratic Republic

DT Journal; Article; (JOURNAL ARTICLE)

LA German

FS Priority Journals

EM 197609

AB Under special conditions the lung develops reactions of

hypersensitivity, e.g. by the contact with antigens consisting of foreign proteins,

organic dusts or different pathogen organisms. It must be distinguished

between uncomplicated allergic and autoimmune diseases. The exact

separation is difficult, because transitions from one state to the other are

possible. The autoimmunisation is a very complicated phenomenon, where

endogenous cells are effective as auto-antigens and induce the development of

auto-antibodies. From the pathological-anatomical point of view

there are no typical structural changes in the lung, which define a disease as a

special autoimmune disease. But the prevalence of round cells in

inflamed tissue, the appearance of granuloma with epithelial cells point to

immunological phenomena. Examples for allergic diseases are:

\*Asthma bronchiale, pigeon- \*\*\*breeder\*\*\* disease, mite-allergy, farmer's

lung, drug-induced allergy, and for autoimmune diseases: \*Lupus

erythematosus,

\*\*\*rheumatoid\*\*\* \*\*\*arthritis\*\*\*, polyarteritis nodosa,

idiopathic

pulmonary hemosiderosis, idiopathic pulmonary fibrosis. \* The

drug-therapy consists of corticoids and immune-suppressive drugs.

=> file medline embase biosis inpadoc caplus

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FILE 'CAPLUS' ENTERED AT 13:57:45 ON 25 JUL 2000

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(FILE HOME' ENTERED AT 13:51:53 ON 25 JUL 2000)

FILE 'MEDLINE' ENTERED AT 13:52:00 ON 25 JUL 2000

L1 16359 S BREEDING/AB,BI

L2 139 S L1 AND BALB/AB,BI

L3 5 S L2 AND TRAIT/AB,BI

L4 35308 S RHEUMATOID ARTHRITIS/AB,BI

L5 9 S L4 AND BREED/AB,BI

FILE 'MEDLINE, EMBASE, BIOSIS, INPADOC, CAPLUS'

ENTERED AT 13:57:45 ON 25

JUL 2000

=> s 15

'AB' IS NOT A VALID FIELD CODE

L6 34 L5

=> dup rem 16

PROCESSING COMPLETED FOR L6

L7 21 DUP REM L6 (13 DUPLICATES REMOVED)

=> s 17 and breeding/ab,bi

'AB' IS NOT A VALID FIELD CODE

L8 7 L7 AND BREEDING/AB,BI

=> d 1- bib ab

YOU HAVE REQUESTED DATA FROM 7 ANSWERS -  
CONTINUE? Y(N)

L8 ANSWER 1 OF 7 MEDLINE

AN 97376834 MEDLINE

DN 97376834

TI High affinity rheumatoid factor transgenic B cells are eliminated in normal mice.

AU Wang H, Shlomchik M J

CS Department of Laboratory Medicine, Yale University School of Medicine, New Haven, CT 06520, USA.

NC P01 AU/AR36529 (NIAID)

SO JOURNAL OF IMMUNOLOGY, (1997 Aug 1) 159 (3)

1125-34.

Journal code: IFB. ISSN: 0022-1767.

CY United States

DT Journal; Article; (JOURNAL ARTICLE)

LA English

FS Abridged Index Medicus Journals; Priority Journals; Cancer Journals

EM 199710

EW 19971003

AB Although systemic autoimmune diseases can be accompanied by multiple autoantibodies, certain specificities are dominant. Presumably, these specificities and their cognate Ags have properties that make them particularly amenable to autoimmune induction. Rheumatoid factors (RFs)

are a dominant class of autoantibodies in \*\*\*rheumatoid\*\*\*

\*\*\*arthritis\*\*\* and certain other autoimmune syndromes. To

study the

regulation of RFs in normal and autoimmune animals, we

previously created

a RF Ig transgenic model based on an RF isolated from an

autoimmune

MRL/lpr mouse. Using this model, called AM14, we were

surprised to find

that normal mice do not regulate disease-related RF B cells. This

raised

the question of whether RFs in general are not susceptible to

tolerance

induction, perhaps due to the unique properties of serum IgG and

its FcRs.

Alternatively, RFs can be tolerized, and the disease-related RFs are

below

the affinity threshold for such tolerance. To distinguish these

possibilities, we generated a second RF transgenic model with the

same

specificity but much higher affinity than AM14. We found that, in

contrast

to AM14, high affinity RF B cells are subject to central tolerance,

showing that there is not an absolute defect in RF B cell tolerance,

but,

rather, that RF B cell tolerance is affinity dependent even in normal

animals. This is also the first model in which a disease-related

specificity has been shown clearly to delete in a system in which

Ag-positive and negative mice can be produced and compared.

L8 ANSWER 2 OF 7 MEDLINE

AN 95142883 MEDLINE

DN 95142883

TI The viable motheaten (mev) mouse—a new model for arthritis.

AU Kovarik J, Kuntz L, Ryffel B, Borel J F

CS Immunology Department, Sandoz Pharma Ltd, Basel, Switzerland.

SO JOURNAL OF AUTOIMMUNITY, (1994 Oct) 7 (5) 575-88.

Journal code: ADL. ISSN: 0896-8411.

CY ENGLAND; United Kingdom

DT Journal; Article; (JOURNAL ARTICLE)

LA English

FS Priority Journals

EM 199505

AB Homozygous mev mice are first identified at the age of 3-4 days

by focal

depigmentation of the skin, followed by patchy absence of hair and

by

necrotic lesions on paws, tail and ears. Of particular interest are the

inflammatory reactions in the paws of these animals which consist

mainly

of polymorphonuclear and mononuclear cell infiltration in the

subcutaneous

tissue extending to the periosteum and joint, resulting in focal

destructive arthritis and osteomyelitis. These lesions are to some

extent

reminiscent of an acute form of rheumatoid-like arthritis. Since

mev mice

are sterile, a limited number of symptomatic offspring can be

obtained by

cross- \*\*\*breeding\*\*\* their heterozygous siblings which are

phenotypically not distinguishable from mice lacking this mutation.

In

order to produce a sufficient number of diseased animals for

performing

pharmacological studies, we have established a model by

transferring this

disease in lethally irradiated, 8- to 10-week-old syngeneic mice

which

were grafted with mev spleen cells. Such reconstituted recipients

develop

first inflammatory symptoms of the paws 2 to 3 weeks after cell

transfer.

The arthritic inflammation finally affects all paws and toes by 30 to

50

days. This procedure increased the number of mev-like mice

expressing

arthritis, allowing assessment of the effects of standard reference

drugs

used in the therapy of \*\*\*rheumatoid\*\*\* \*\*\*arthritis\*\*\*

(RA). The

immunosuppressants cyclosporin and rapamycin and the steroid

dexamethasone

at therapeutic concentrations exert a strong inhibitory effect on the

development of arthritis in this novel model. In contrast, the

non-steroidal anti-inflammatory drug phenylbutazone shows only a

moderate

effect. These results indicate the particular sensitivity of this model

for efficacy of potentially new therapeutic but non-cytostatic

compounds

for clinical use.

L8 ANSWER 3 OF 7 MEDLINE

AN 91224865 MEDLINE

DN 91224865

TI Juvenile-onset polyarthritis syndrome in Akita.

AU Dougherty S A; Center S A; Shaw E E; Erb H A

CS Department of Clinical Science, New York State College of

Veterinary

Medicine, Cornell University, Ithaca 14853-6401..

SO JOURNAL OF THE AMERICAN VETERINARY MEDICAL

ASSOCIATION, (1991 Mar 1) 198

(5) 849-56.

Journal code: HAV. ISSN: 0003-1488.

CY United States

DT Journal; Article; (JOURNAL ARTICLE)

LA English

FS Priority Journals

EM 199108

AB Two young Akita were examined because of manifestation of a

juvenile-onset form of polyarthritis. A search of medical records at

the

New York State College of Veterinary Medicine found 6 more

similarly

affected Akita. The clinical manifestations were marked by cyclic

febrile

illness and signs of profound joint-related pain. Two dogs had

concurrent

aseptic meningitis. The syndrome resembles juvenile

\*\*\*rheumatoid\*\*\*

\*\*\*arthritis\*\*\* in human beings, although it shares features with

systemic lupus erythematosus. Pedigree analysis of affected Akita

supported a heritable component to the syndrome. Treatment with

immunosuppressive drugs was effective in 2 dogs that achieved

- complete remission, and in 2 dogs that achieved only partial remission. Classification of this syndrome is difficult and may represent an "overlap" syndrome commonly described in human beings.
- L8 ANSWER 4 OF 7 EMBASE COPYRIGHT 2000 ELSEVIER SCI. B.V.  
AN 2000216142 EMBASE  
TI Genetic control of arthritis in rats.  
AU Holmdahl R.; Vingsbo-Lundberg C.; Nordquist N.; Olofsson P.; Sundvall M.; Saxne T.; Pettersson U.  
CS R. Holmdahl, Medical Inflammation Research, CMB, Lund University, Box 94, S-221 00 Lund, Sweden. rikard.holmdahl@inflam.lu.se  
SO Journal of Experimental Animal Science, (2000) 41/1-2 (7-13).  
Refs: 23  
ISSN: 0939-8600 CODEN: JEXSEU  
CY Germany  
DT Journal, Conference Article  
FS 022 Human Genetics  
LA English  
SL English  
AB This study was specifically designed to analyse the genetic control of the chronic disease course for the development of arthritis. Arthritis models with a chronic erosive arthritis are collagen induced arthritis induced with homologous collagen in oil but also arthritis induced with certain non-immunogenic adjuvants such as pristane and avridine. In the presently described experiment we have used pristane induced arthritis. A single injection of 150 µl pristane induces severe chronic arthritis in rats. The disease mimics \*\*\*rheumatoid\*\*\* \*\*\*arthritis\*\*\* in many aspects such as the chronic disease course, an erosive inflammation of peripheral joints, symmetric involvement of the joints and the development of rheumatoid factors. To determine the genetic contribution we have used a number of inbred, recombinant inbred and congenic strains as well as specifically designed segregating crosses. An influence by the MHC region (designated P1a1 locus) on the chronic disease course was determined through the uses of MHC congenic LEW strains in which the RT1-f haplo-type conferred highest susceptibility. To map genes outside of MHC we used an F2 cross between the highly susceptible DA and the resistant E3 strains.
- Loci exclusively associated with different phenotypes of the disease could be identified. cmtdot. Arthritis onset (P1a2 and P1a3) . cmtdot. Severity and joint erosions (P1a4) . cmtdot. Chronicity (P1a5 and P1a6) and P1a1 (determined from MHC congenic strains). These findings demonstrates that a chronic self-perpetuating disease, mimicking \*\*\*rheumatoid\*\*\* \*\*\*arthritis\*\*\*, is controlled by different set of genes exclusively linked to different phases of the disease course such as arthritis onset, joint erosions, severity and chronicity.
- L8 ANSWER 5 OF 7 EMBASE COPYRIGHT 2000 ELSEVIER SCI. B.V.  
AN 80054040 EMBASE  
DN 1980054040  
TI Early rheumatoid-like joint lesions in rabbits injected with foreign serum or milk proteins. III. Influence of concomitant IgE-like antibodies and of the \*\*\*breed\*\*\* of rabbit.  
AU Oldham G.; Coombs R.R.A.  
CS Div. Immunol., Dept. Pathol., Univ. Cambridge, United Kingdom  
SO International Archives of Allergy and Applied Immunology, (1980) 61/1 (81-90).  
CODEN: IAAAMA  
CY Switzerland  
DT Journal  
FS 037 Drug Literature Index  
031 Arthritis and Rheumatism  
026 Immunology, Serology and Transplantation  
LA English  
AB The presence of circulating IgE-like antibody was found not to enhance the induction of joint lesions, of moderate or greater intensity, by intravenous injection of bovine serum, but did make mild joint lesions more frequent. There was a positive correlation between increased white cell effusion into the joint fluid and joint lesions of moderate or greater intensity. Different \*\*\*breeds\*\*\* of rabbit were shown to produce different incidences of lesions suggesting a genetic influence on the development of rheumatoid-like joint lesions. The Old English \*\*\*breed\*\*\* was found to be particularly sensitive.
- L8 ANSWER 6 OF 7 BIOSIS COPYRIGHT 2000 BIOSIS AN 1998161442 BIOSIS  
DN PREV199800161442  
TI Acquired inhibitor to factor VIII: C in non hemophilia (acquired hemophilia). Clinico-biological study and management in nine patients.
- AU Liozon, Eric (1); Delaire, Laurent; Turlure, Pascal; Jaccard, Arnaud; Loustaud-Ratti, Veronique; Remenieras, Liliane; Julia, Annie; Gaillard, Solange; Bordesroule, Dominique; Vidal, Elisabeth  
CS (1) Serv. Med. Interne A., CHRU Dupuytren, 2 rue Martin-Luther-King, 87042 Limoges France  
SO Annales de Medecine Interne, (Nov., 1997) Vol. 148, No. 7, pp. 477-490.  
ISSN: 0003-410X.  
DT Article  
LA French  
AB Study designs: To describe retrospectively the experience of the Medicine and Clinical Hematology Departments of a University Hospital on adult acquired hemophilia (AH) caused by autoantibody against factor VIII coagulant (f.VIII:C) activity. Diagnosis, clinical datas, associated diseases, treatment and final outcome are described and compared to the published literature. Material and methods. All cases admitted in both departments since 1989 were enrolled in the study. Clotting analyses comprised clotting times (activated partial thromboplastin time, prothrombin and thrombine times), measurements of f.VIII:C level, antifactor VIII detection and measurement by the Bethesda method assay.  
Search for an etiologic factor could not be standardized. All patients were followed until cure, sustained improvement, or death. Results: From 1989 to 1996. All was diagnosed in nine adult patients. Mean age was 76 ± 24.6 years (range: 65-89) and sex ratio male to female was 2. Eight bleeding episodes occurred in seven patients, resulting consistently in severe hemorrhagic anemia and leading to hemodynamic failure in two, while two others remained asymptomatic for prolonged periods. The initial levels of f.VIII:C ranged from less than 1% to 20%, and the titers of inhibitors ranged from 0.5 to 100 Bethesda units. An underlying disease, to which the appearance of their inhibitor could be related, either concomitantly or up to 1 year later, was found in four cases including (one case each): \*\*\*rheumatoid\*\*\* \*\*\*arthritis\*\*\*, lupus erythematosus with antiphospholipid syndrome, followed by non-Hodgkin malignant lymphoma, relapsing carcinoma and, biliary tract surgery. Six acute bleeding episodes necessitated symptomatic measures, based on activated prothrombin complex concentrates in four instances, with a good response in all

cases.  
Preparation to minor surgical operations was achieved in two symptomatic subjects by either highly purified factor VIII concentrates infusion or intravenous 1-desamino-8-D-arginine vasopressin, with a good control of local hemostasis in each case. Three received intravenous immunoglobulins, which resulted in success in one, failure in one and, questionable response in the latter. Immunosuppression, mainly with corticosteroids, cyclophosphamide, or both, was given to seven, resulting in disappearance of inhibitor in five (delay to cure ranged from 2 weeks to 10 months), improvement in one, and failure in one (in this latter case, cure was eventually achieved with the anti-Hodgkin disease MOPP chemotherapy).  
After a 27-month mean follow-up, six patients experienced a sustained complete response and one a sustained partial response to immuno-suppression, two untreated patients remained asymptomatic, two died later from malignancy (carcinoma and myelodysplastic syndrome).  
Conclusion. - AH usually presents as a severe or even a life-threatening disease, necessitating prompt and thorough symptomatic measures directed at the cessation of \*\*\*breeding\*\*\* and prevention of their relapse. In our experience, no death was attributable to AH or its treatment. Immunosuppression is useful in selected cases, but must be carefully discussed, since it can be highly toxic, especially in the elderly. Given the possibility of a delayed onset of some etiologic factors, a prolonged surveillance of each case of idiopathic AH is mandatory.

L8 ANSWER 7 OF 7 BIOSIS COPYRIGHT 2000 BIOSIS  
AN 1993:455916 BIOSIS  
DN PREV199396100816  
TI Spontaneous production of Epstein-Barr virus by B lymphoblastoid cell lines obtained from patients with Sjogren's syndrome: Possible involvement of a novel strain of Epstein-Barr virus in disease pathogenesis.  
AU Tateishi, Mutsuto, Saito, Ichiro, Yamamoto, Kohliaro, Miyasaka, Nobuyuki  
(1)  
CS (1) Dep. Virol. Immunol., Div. Immunol. Dis., Med. Res. Inst., Tokyo Med. Dent. Univ., 1-5-45, Yushima, Bunkyo-ku, Tokyo Japan  
SO Arthritis & Rheumatism, (1993) Vol. 36, No. 6, pp. 827-835.  
ISSN: 0004-3591.  
DT Article

L9 English  
AB Objective: To investigate the involvement of Epstein-Barr virus (EBV) in the pathogenesis of Sjogren's syndrome (SS) and to examine whether the spontaneous production of EBV is unique to SS B cell lines.  
Methods: B cell lines were established from peripheral blood mononuclear cells of patients with systemic lupus erythematosus, \*\*\*rheumatoid\*\*\*, \*\*\*arthritis\*\*\*, and SS. The cord blood immortalization assay, cytometric analysis, and polymerase chain reaction (PCR) were used to detect EBV production by B cell lines. Results: SS B cell lines produced EBV at a higher frequency, and in significantly larger amounts, than did other B cell lines. However, no correlation with the amount of EBV DNA in the genome of B cell lines was found. PCR analysis revealed that a B95-8-like U2 region was dominant in SS B cell lines.  
Conclusion: Spontaneous, massive production of EBV by B cell lines is unique to SS, and may contribute to the polyclonal B cell activation seen in this disease.  
=> s arthritis and model/ab,bi  
'AB' IS NOT A VALID FIELD CODE  
L9 12601 ARTHRITIS AND MODEL/AB,BI  
=> s l9 and (mice or mouse)/ab,bi  
'AB' IS NOT A VALID FIELD CODE  
L10 3695 L9 AND (MICE OR MOUSE)/AB,BI  
=> s l10 and progeny/ab,bi  
'AB' IS NOT A VALID FIELD CODE  
L11 20 L10 AND PROGENY/AB,BI  
=> dup rem l11  
PROCESSING COMPLETED FOR L11  
L12 9 DUP REM L11 (11 DUPLICATES REMOVED)  
=> d 1 - bib ab  
YOU HAVE REQUESTED DATA FROM 9 ANSWERS - CONTINUE? Y(N)?

L12 ANSWER 1 OF 9 MEDLINE  
AN 2000139432 MEDLINE  
DN 20139432  
TI An integrated genetic linkage map with 1,137 markers constructed from five F2 crosses of autoimmune disease-prone and -resistant inbred rat strains.  
F2 crosses of autoimmune disease-prone and -resistant inbred rat strains.  
AU Dracheva S V; Remmers E F; Chen S; Chang L; Gulko P S; Kawahito Y; Longman R E; Wang J; Du Y; Shepard J; Ge L; Joe B; Kotake S; Salstrom J L; Furuya T; Hoffman J; Cannon G W; Griffiths M M; Wilder R L  
CS The Inflammatory Joint Diseases Section, National Institute of Arthritis and Musculoskeletal and Skin Diseases, Bethesda, Maryland 20892, USA.  
SO GENOMICS, (2000 Jan 15) 63 (2) 202-26.  
Journal code: GEN. ISSN: 0888-7543.  
CY United States  
DT Journal, Article, (JOURNAL ARTICLE)  
LA English  
FS Priority Journals  
EW 200006  
EW 20000604  
AB The rat (Rattus norvegicus) is an important experimental \*\*\*model\*\*\* for many human diseases including \*\*\*arthritis\*\*\*, diabetes, and other autoimmune and chronic inflammatory diseases. The rat genetic linkage map, however, is less well developed than those of \*\*\*mouse\*\*\* and human.  
Integrated rat genetic linkage maps have been previously reported by Pravenec et al. (1996, Mamm. Genome 7: 117-127) (500 markers mapped in one cross), Bihoreau et al. (1997, Genome Res. 7: 434-440) (767 markers mapped in three crosses), Wei et al. (1998, Mamm. Genome 9: 1002-1007) (562 markers mapped in two crosses), Brown et al. (1998, Mamm. Genome 9: 521-530) (678 markers mapped in four crosses), and Nordquist et al. (1999, Rat Genome 5: 15-20) (330 markers mapped in two crosses). The densest linkage map combined with a radiation hybrid map, reported by Steen et al. (1999, Genome Res. 9: AP1-AP8), includes 4736 markers mapped in two crosses. Here, we present an integrated linkage map with 1137 markers. We have constructed this map by genotyping F2 \*\*\*progeny\*\*\* of five crosses: F344/NHsd x LEW/NHsd (673 markers), DA/Bkl x F344/NHsd (531 markers), BN/SsN x LEW/N (714 markers), DA/Bkl x

DUPLICATE 1



- BN/SegHsd (194 markers), and DA/Bk1 x ACI/SegHsd (245 markers). These inbred rat strains vary in susceptibility/resistance to multiple autoimmune diseases and are used extensively for many types of investigation. The integrated map includes 360 loci mapped in three or more crosses. The map contains 196 new SSLP markers developed by our group, as well as many SSLP markers developed by other groups. Two hundred forty genes are incorporated in the map. This integrated map should allow comparison of rat genetic maps from groups and thereby facilitate genetic studies of rat autoimmune and related disease models. Copyright 2000 Academic Press.
- L12 ANSWER 2 OF 9 MEDLINE DUPLICATE 2  
AN 2000081743 MEDLINE  
DN 20001743  
TI Identification of multiple loci linked to inflammation and autoantibody production by a genome scan of a murine \*\*\*model\*\*\* of rheumatoid \*\*\*arthritis\*\*\*  
AU Otto J M; Cs-Szabo G; Gallagher J; Velins S; Mikecz K; Buzas E I; Enders J T; Li Y; Olsen B R; Ghan T T  
CS Department of Biochemistry, Rush University at Rush-Presbyterian-St. Luke's Medical Center, Chicago, Illinois 60612, USA.  
NC AR-40310 (NIAMS) AR-45652 (NIAMS)  
SO ARTHRITIS AND RHEUMATISM, (1999 Dec) 42 (12) 2524-31.  
Journal code: 90M. ISSN: 0004-3591.  
CY United States  
DT Journal; Article; (JOURNAL ARTICLE)  
LA English  
FS Abridged Index Medicus Journals; Priority Journals  
EM 200004  
EW 20000401  
AB OBJECTIVE: Proteoglycan-induced \*\*\*arthritis\*\*\* (PGA) is a murine \*\*\*model\*\*\* of rheumatoid \*\*\*arthritis\*\*\* (RA), both in terms of its pathology and its genetics. PGA can only be induced in susceptible murine strains and their F2 \*\*\*progeny\*\*\*. As with RA, the genetics are complex, containing both major histocompatibility complex (MHC)-related and non-MHC-related components. Our goal was to identify the underlying non-MHC-related loci that confer PGA susceptibility. METHODS: We used 106 polymorphic markers to perform simple sequence-length polymorphism analysis on F2 hybrids of susceptible (BALB/c) and nonsusceptible (DBA/2) strains of \*\*\*mice\*\*\*. Because both strains of \*\*\*mice\*\*\* share the H2d haplotype, this cross permits identification and analysis of non-MHC-related genes. RESULTS: We identified a total of 12 quantitative trait loci (QTL) associated with PGA, which we have named Pga1 through Pga12. QTLs associated with the inflammatory symptoms of PGA were linked to chromosomes 7, 9, 15 (2 separate loci), 16, and 19. QTLs associated with autoantibody production were identified on chromosomes 1, 2, 7, 8, 10, 11, 16, and 18. QTLs on chromosomes 7 and 16 showed linkage to both inflammation and autoantibody production, suggesting a shared regulatory component in \*\*\*arthritis\*\*\* induction. The first inflammation QTL on chromosome 15 and the autoantibody QTL on chromosome 7 originate from the DBA/2 background, which indicates that as in RA, susceptibility genes can originate from heterogeneous backgrounds. CONCLUSION: These data demonstrate the complexity of PGA, where QTLs may be involved in multiple traits or even originate from a genetic background previously determined to be resistant.
- L12 ANSWER 3 OF 9 EMBASE COPYRIGHT 2000 ELSEVIER SCI B.V.  
AN 1999246754 EMBASE  
TI Identification of a new quantitative trait locus on Chromosome 7 controlling disease severity of collagen-induced \*\*\*arthritis\*\*\* in rats.  
AU Dracheva S V.; Remmers E F.; Gulko P S.; Kawahito Y.; Longman R.E.; Reese V.R.  
CS R.L. Wilder, Inflammatory Joint Diseases Section, National Institutes Of Health, Bldg. 10, 10 Center Drive, Bethesda, MD 20892, United States.  
wilder@arthritis.nih.gov  
SO Immunogenetics, (1999) 49/9 (787-791).  
Refs: 36  
ISSN: 0093-7711 CODEN: IMNGBK  
CY Germany  
DT Journal; Article  
FS 005 General Pathology and Pathological Anatomy  
022 Human Genetics  
026 Immunology, Serology and Transplantation  
031 Arthritis and Rheumatism
- LA English  
SL English  
AB Autoimmune diseases, such as rheumatoid \*\*\*arthritis\*\*\*, Crohn's disease, and multiple sclerosis, are regulated by multiple genes. Major histocompatibility complex (MHC) genes have the strongest effects, but non-MHC genes also contribute to disease susceptibility/severity. In this paper, we describe a new non-MHC quantitative trait locus, Cia8, on rat Chromosome (Chr) 7 that controls collagen-induced \*\*\*arthritis\*\*\* severity in F2 \*\*\*progeny\*\*\* of DA and F314 inbred rats, and present an updated localization of Cia4 on the same chromosome. We also describe the location of \*\*\*mouse\*\*\* and human genes, orthologous to the genes in the genomic intervals containing Cia4 and Cia8, and provide evidence that the segment of rat Chr 7 containing Cia4 and Cia8 is homologous to segments of \*\*\*mouse\*\*\* Chr 10 and 15 and human Chr 8, 12, and 19.
- L12 ANSWER 4 OF 9 MEDLINE DUPLICATE 3  
AN 1998451500 MEDLINE  
DN 98451500  
TI Localization of quantitative trait loci regulating adjuvant-induced \*\*\*arthritis\*\*\* in rats: evidence for genetic factors common to autoimmune diseases.  
AU Kawahito Y.; Cannon G W.; Gulko P S.; Remmers E F.; Longman R.E.; Reese V.R.  
Wang J; Griffiths M M; Wilder R L  
CS The Inflammatory Joint Diseases Section, Arthritis and Rheumatism Branch, National Institute of Arthritis and Musculoskeletal and Skin Diseases, Bethesda, MD 20892-1820, USA.  
SO JOURNAL OF IMMUNOLOGY, (1998 Oct 15) 161 (8) 4411-9.  
Journal code: IFB. ISSN: 0022-1767.  
CY United States  
DT Journal; Article; (JOURNAL ARTICLE)  
LA English  
FS Abridged Index Medicus Journals; Priority Journals; Cancer Journals  
EM 199901  
AB Adjuvant-induced \*\*\*arthritis\*\*\* (AIA) in rats is a widely used autoimmune experimental \*\*\*model\*\*\* with many features similar to rheumatoid \*\*\*arthritis\*\*\* (RA). To identify potential genetic regulatory mechanisms in RA, we conducted genome-wide linkage analysis in

F2 \*\*\*progeny\*\*\* of \*\*\*arthritis\*\*\* -susceptible Dark Agouti (DA) and relatively resistant Fischer 344 (F344) inbred rats. We compared the data with our previously reported investigation of collagen-induced \*\*\*arthritis\*\*\* (CIA), which was expanded in the follow-up study reported in this work. We found two quantitative trait loci (QTLs) in common, i.e., Aia1/Cia1 on chromosome 20, which includes the MHC, and Aia3/Cia3 on chromosome 4. We also identified a second unique QTL in Aia2, on chromosome 4. Interestingly, the QTL region on chromosome 4 (Aia3/Cia3), like the MHC, appears to be involved in several other autoimmune diseases in rats, including insulin-dependent diabetes, thyroiditis, and experimental autoimmune uveitis. Moreover, an analysis of conserved synteny among rats, \*\*\*mice\*\*\*, and humans suggested that Aia2 and Aia3/Cia3, like Aia1/Cia1, contain candidate genes for several autoimmune/inflammatory diseases in \*\*\*mice\*\*\* and humans, including diabetes, systemic lupus erythematosus, inflammatory bowel disease, asthma/atopy, multiple sclerosis, and RA. The rat models appear to provide a powerful complementary approach to identify and characterize candidate genes that may contribute to autoimmune diseases in several species.

L12 ANSWER 5 OF 9 MEDLINE DUPLICATE 4  
 AN 97426595 MEDLINE  
 DN 97426595  
 TI Mapping of \*\*\*mouse\*\*\* obesity genes: A generic approach to a complex trait.  
 AU Flier J S, Warden C H  
 CS Department of Medicine, Division of Cardiology, University of California, Los Angeles, CA 90095, USA.  
 SO JOURNAL OF NUTRITION, (1997 Sep) 127 (9) 1909S-1916S.  
 Ref: 78  
 Journal code: JEV. ISSN: 0022-3166.  
 CY United States  
 DT Journal Article; (JOURNAL ARTICLE)  
 General Review; (REVIEW)  
 (REVIEW, TUTORIAL)  
 LA English  
 FS Priority Journals  
 EM 199712  
 EW 19971204  
 AB Identification of genes underlying any complex trait such as obesity is an

important and difficult problem in genetics. Traditional candidate gene approaches cannot be relied on to identify all of the genes influencing a complex trait, and positional cloning is very laborious. With the advent of new tools and methods, however, comprehensive approaches to the identification of any genes underlying complex traits are now available. Quantitative trait locus (QTL) mapping is a general technique to map Mendelian factors influencing complex traits. The QTL approach involves the crossing of two strains that differ in the trait of interest to produce F2 or back-cross \*\*\*progeny\*\*\*, individually phenotyping and genotyping each \*\*\*progeny\*\*\*, and statistically associating the typed markers and the phenotype. QTL mapping has been used in the last 4 years to map genes for a wide variety of traits, including body weight and growth, obesity, atherosclerosis and susceptibility to cancer in the \*\*\*mouse\*\*\*, and hypertension, hyperactivity, and \*\*\*arthritis\*\*\* in the rat. QTL mapping has also been used to map genes in pigs, poultry, cows, fish and plants. Once a trait has been located in a chromosomal subregion, identifying the underlying gene remains a significant problem. A monogenic \*\*\*model\*\*\* must be developed, isolating one gene influencing a trait from other genes affecting the same phenotype. Then the positional candidate strategy, which relies on a combination of mapping to a chromosomal subregion followed by a survey of the interval to see if attractive candidates reside there, becomes practical.

L12 ANSWER 6 OF 9 CAPLUS COPYRIGHT 2000 ACS  
 AN 1997:595664 CAPLUS  
 DN 127:276143  
 TI Mapping of \*\*\*mouse\*\*\* obesity genes: a genetic approach to a complex trait.  
 AU Flier, Janis S.; Warden, Craig H.  
 CS Dep. of Medicine, Division of Cardiology, University of California, Los Angeles, CA, 90095, USA  
 SO J. Nutr. (1997), 127(9), 1909S-1916S  
 CODEN: JONUAI; ISSN: 0022-3166  
 PB American Society for Nutritional Sciences  
 DT Journal; General Review  
 LA English  
 AB A review with 78 refs. Identification of genes underlying any complex

trait such as obesity is an important and difficult problem in genetics. Traditional candidate gene approaches cannot be relied on to identify all of the genes influencing a complex trait, and positional cloning is very laborious. With the advent of new tools and methods, however, comprehensive approaches to the identification of any genes underlying complex traits are now available. Quant. trait locus (QTL) mapping is a general technique to map Mendelian factors influencing complex traits. The QTL approach involves the crossing of two strains that differ in the trait of interest to produce F2 or back-cross \*\*\*progeny\*\*\*, individually phenotyping and genotyping each \*\*\*progeny\*\*\*, and statistically assoc. the typed markers and the phenotype. QTL mapping has been used in the last 4 yr to map genes for a wide variety of traits, including body wt. and growth, obesity, atherosclerosis, and susceptibility to cancer in the \*\*\*mouse\*\*\*, and hypertension, hyperactivity, and \*\*\*arthritis\*\*\* in the rat. QTL mapping has also been used to map genes in pigs, poultry, cows, fish, and plants. Once a trait has been located in a chromosomal subregion, identifying the underlying gene remains a significant problem. A monogenic \*\*\*model\*\*\* must be developed, isolating one gene influencing a trait from other genes affecting the same phenotype. Then the positional candidate strategy, which relies on a combination of mapping to a chromosomal subregion followed by a survey of the interval to see if attractive candidates reside there, becomes practical.

L12 ANSWER 7 OF 9 BIOSIS COPYRIGHT 2000 BIOSIS  
 AN 1994:483636 BIOSIS  
 DN PREV199497496636  
 TI Collagen-induced \*\*\*arthritis\*\*\* and TCRs in SWR and B10.Q \*\*\*mice\*\*\* expressing an F-alpha-kappa transgene.  
 AU Griffiths, Marie M. (1); Nabozny, Gerald H.; Hanson, Julie; Harper, D. Scott; McCall, Shawna; Moder, Kevin G.; Cannon, Grant W.; Luthra, Harvinder S.; David, Chella S.  
 CS (1) Div. Rheumatol., Dep. Med., Univ. Utah Med. Sch., 50 North Medical Dr., Salt Lake City, UT 84132 USA  
 SO Journal of Immunology. (1994) Vol. 153, No. 6, pp. 2758-2768.  
 ISSN: 0022-1767.  
 DT Article

- LA English  
AB B10.E-alpha-k transgenic \*\*\*mice\*\*\* were mated with H2-E-B10.Q and  
SWR \*\*\*mice\*\*\* F-1 and F-1 times parental strain backcross  
\*\*\*progeny\*\*\* were tested for \*\*\*arthritis\*\*\* and  
autoimmune  
reactivity to \*\*\*mouse\*\*\* type II collagen (MII) after  
immunization  
with bovine, chick, deer, or human type II collagen. The results  
were  
correlated with the H-2 haplotype (b/q vs q/q) and the TCR VP  
profile of  
peripheral blood T cells in each \*\*\*mouse\*\*\*. Hybrid  
\*\*\*progeny\*\*\*  
expressed TCR profiles different from either parent because of the  
TCR VP  
genomic deletions of SWR \*\*\*mice\*\*\* (VP), the wild-type  
TCR allele of  
C57B/10 (B10) \*\*\*mice\*\*\* (V-beta-b), and the intrathymic  
negative  
selection processes resulting from cell surface expression of  
E-alpha-k-A-beta-q or E-beta-b-E-alpha-k, together with the  
integrated  
retroviral genes Mtv-9 originating in B10 \*\*\*mice\*\*\* and  
Mtv-7(MIs-1-a) from SWR \*\*\*mice\*\*\* (B10.E-alpha-k times  
SWR)F-1  
\*\*\*mice\*\*\* developed higher IgG anti-MII Ab titers, but much  
milder  
\*\*\*arthritis\*\*\* than (B10.E times B10.Q)F-1 \*\*\*mice\*\*\*.  
Expression  
of Ek did not change the level of IgG anti-MII Ab nor the degree of  
susceptibility to collagen-induced \*\*\*arthritis\*\*\* (CIA) in the  
H-2-q/q and H-2-b/q \*\*\*progeny\*\*\* of (B10.E-alpha-k times  
B10.Q)F-1 x  
B10.Q matings, indicating that the Mtv-9-reactive, TCR V-beta-5+,  
and  
V-beta-11+ T cells are not critical to CIA. Among bovine type II  
collagen-immunized (B10.E-alpha-k times SWR)F-1 times SWR  
backcross  
\*\*\*mice\*\*\* : 1) \*\*\*arthritis\*\*\* severity is associated with  
the  
presence of V-beta-b (p Ioreq 0.01) and expression of E-alpha-k (p  
Ioreq  
0.05), but not with the MHC haplotype (b/q vs q/q); 2) regression  
analysis  
showed a significant association (R = 0.99) between IgG anti-MII  
Ab titers  
and the level of Mtv-7-reactive V-beta-6+ T cells that was  
detectable in  
the IgG I, but not the IgG2a subclass. The data prompt the  
speculation  
that Mtv-7-reactive V-beta-6+ (or V-beta-7+) T cells in  
(B10.E-alpha-k x  
SWR)F-1 x SWR \*\*\*mice\*\*\* express Th2-type properties, and  
thus  
contribute to the combination of mild \*\*\*arthritis\*\*\* but high  
anti-MII Ab titers that characterize \*\*\*mice\*\*\* of SWR
- heritage.  
L12 ANSWER 8 OF 9 MEDLINE  
DN 91310083 MEDLINE  
DUPLICATE 5  
TI The role of C5 and T-cell receptor Vb genes in susceptibility to  
collagen-induced \*\*\*arthritis\*\*\* [see comments].  
CM Comment in: Immunogenetics 1992;35(1):69-70  
AU Spinella D G; Jeffers J R; Reife R A; Stuart J M  
CS Veterans Administration Medical Center, Memphis, TN 38104.  
NC AK39166 (NIAMS)  
SO IMMUNOGENETICS, (1991) 34 (1) 23-7.  
Journal code: G14 ISSN: 0093-7711.  
CY United States  
DT Journal; Article; (JOURNAL ARTICLE)  
LA English  
FS Priority Journals; Cancer Journals  
EM 199110  
AB Collagen-induced \*\*\*arthritis\*\*\* (CIA) is a rodent  
\*\*\*arthritis\*\*\*  
\*\*\*model\*\*\* in which immunization with heterologous type II  
collagen  
induces an inflammatory polyarthritis. Susceptibility to the disease  
is  
mediated by major histocompatibility complex (MHC) genes as  
well as genes  
at other loci. Previous studies of the SWR/J \*\*\*mouse\*\*\*  
strain, which  
is resistant to CIA despite bearing the susceptible H-2q haplotype,  
have  
suggested that this resistance is the result of a deletion of T-cell  
receptor (Tr) Vb gene segments which is carried by this strain.  
Other  
studies have implicated a deficiency in complement component C5  
as the  
cause for the resistance. In order to assess the relative importance  
of  
these two genes in susceptibility to CIA, and to provide an estimate  
of  
the number of independent genes involved in the disease, we  
analyzed 196  
F2 \*\*\*progeny\*\*\* of a (DBA/1 x SWR/J) cross for  
\*\*\*arthritis\*\*\*  
susceptibility, and expression of both C5 and Tr genes. Thirty of  
the F2  
\*\*\*progeny\*\*\* developed \*\*\*arthritis\*\*\*. All of the arthritic  
\*\*\*mice\*\*\* had at least one copy of the wild-type C5 allele,  
while the  
Tr-Vb haplotypes were distributed in Mendelian fashion. These  
results  
demonstrate that C5 sufficiency is an absolute requirement for CIA,  
but  
that Tr-Vb genes located within the SWR deletion have little  
influence.  
Genetic analysis of the incidence rate suggests that there is  
polygenic
- control of susceptibility to CIA and that in addition to H-2, 5-6  
other  
independent loci (including C5) may be involved.  
L12 ANSWER 9 OF 9 BIOSIS COPYRIGHT 2000 BIOSIS  
AN 1991:431916 BIOSIS  
DN BA92:88081  
TI THE ROLE OF C5 AND T-CELL RECEPTOR VB GENES IN  
SUSCEPTIBILITY TO  
COLLAGEN-INDUCED \*\*\*ARTHRITIS\*\*\*  
AU SPINELLA D G; JEFFERS J R; REIFE R A; STUART J M  
CS VA MED. CENT., 1030 JEFFERSON AVE., MEMPHIS,  
TENN 38104, USA.  
SO IMMUNOGENETICS, (1991) 34 (1), 22-27.  
CODEN: IMNGBK ISSN: 0093-7711.  
FS BA; OLD  
LA English  
AB Collagen-induced \*\*\*arthritis\*\*\* (CIA) is a rodent  
\*\*\*arthritis\*\*\*  
\*\*\*model\*\*\* in which immunization with heterologous type II  
collagen  
induces an inflammatory polyarthritis. Susceptibility to the disease  
is  
mediated by major histocompatibility complex (MHC) genes as  
well as genes  
at other loci. Previous studies of the SWR/J \*\*\*mouse\*\*\*  
strain, which  
is resistant to CIA despite bearing the susceptible H-2q haplotype,  
have  
suggested that this resistance is the result of a deletion of T-cell  
receptor (Tr) Vb gene segments which is carried by this strain.  
Other  
studies have implicated a deficiency in complement component C5  
as the  
cause for the resistance. In order to assess the relative importance  
of  
these two genes in susceptibility to CIA, and to provide an estimate  
of  
the number of independent genes involved in the disease, we  
analyzed 196  
F2 \*\*\*progeny\*\*\* of a (DBA/1 times SWR/J) cross for  
\*\*\*arthritis\*\*\* susceptibility, and expression of both C5 and Tr  
genes.  
Thirty of the F2 \*\*\*progeny\*\*\* developed \*\*\*arthritis\*\*\*.  
All of  
the arthritic \*\*\*mice\*\*\* had at least one copy of the wild-type  
C5  
allele, while the Tr-Vb haplotypes were distributed in Mendelian  
fashion.  
These results demonstrate that C5 sufficiency is an absolute  
requirement  
for CIA, but that Tr-Vb genes located within the SWR deletion  
have little  
influence. Genetic analysis of the incidence rate suggests that there  
is  
polygenic control of susceptibility to CIA and that in addition to  
H-2,

5-6 other independent loci (including C5) may be involved.

=> file medline

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SINCE FILE	TOTAL	
CA SUBSCRIBER PRICE	ENTRY	SESSION
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FILE 'MEDLINE' ENTERED AT 14:04:55 ON 25 JUL 2000

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MEDLINE has been released to reflect the annual MeSH changes  
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Medicus (CIMA), has been added to MEDLINE. See HELP  
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the  
Basic Index. See HELP SFIELDS for details.

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AND ACCURATE  
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=> s rheumatoid arthritis and screening/ab,bi

62441 RHEUMATOID  
84571 ARTHRITIS  
35308 RHEUMATOID ARTHRITIS  
(RHEUMATOID(W)ARTHRITIS)  
135856 SCREENING/BI  
5361026 AB/FA  
77715 SCREENING/AB  
(SCREENING/BI (L) AB/FA)  
135856 SCREENING/BI  
L13 272 RHEUMATOID ARTHRITIS AND  
SCREENING/AB,BI

=> s l13 and therap/ab,bi

1932856 THERAP/BI  
5361026 AB/FA  
459694 THERAP/AB  
(THERAP/BI (L) AB/FA)

1932856 THERAP/BI  
L14 76 L13 AND THERAP/AB,BI

=> s l14 and model/ab,bi

336283 MODEL/BI  
5361026 AB/FA  
298097 MODEL/AB  
(MODEL/BI (L) AB/FA)  
336283 MODEL/BI  
L15 9 L14 AND MODEL/AB,BI

=> d l- bib ab

YOU HAVE REQUESTED DATA FROM 9 ANSWERS -  
CONTINUE? Y(N)Y

L15 ANSWER 1 OF 9 MEDLINE  
AN 1999255070 MEDLINE  
DN 99255070  
TI Anticomplement activity of triterpenes from Crataeva nurvala  
stem bark in  
adjuvant arthritis in rats

AU Geetha T; Varalakshmi P  
CS Department of Medical Biochemistry, Dr. A.L. Mudaliar Post  
Graduate  
Institute of Basic Medical Sciences, University of Madras,  
Chennai, India.  
SO GENERAL PHARMACOLOGY, (1999 Apr) 32 (4) 495-7.  
Journal code: FLK. ISSN: 0306-3623.

CY ENGLAND: United Kingdom  
DT Journal; Article; (JOURNAL ARTICLE)  
LA English  
FS Priority Journals  
EM 199909

AB Adjuvant arthritis is widely used as an experimental  
\*\*\*model\*\*\* for  
\*\*\*rheumatoid\*\*\* and inflammation. It is  
useful in  
the evaluation of anti-inflammatory drugs. Lupeol is a naturally  
occurring  
triterpene isolated from Crataeva nurvala stem bark, and its ester  
lupeol  
linoleate was synthesized. The effects of lupeol and lupeol  
linoleate on  
the development of complement in adjuvant arthritis in rats were  
studied  
and compared with those of indomethacin. The effect of lupeol  
linoleate in  
reducing the foot-pad thickness and complement activity in arthritic  
rats  
was even greater than that of unesterified lupeol and indomethacin.  
Because complement is highly involved in inflammation, the  
results suggest  
that the anti-inflammatory activity of triterpenes may be due to their

anticomplementary activity.

L15 ANSWER 2 OF 9 MEDLINE  
AN 97349900 MEDLINE  
DN 97349900  
TI Pharmacological profile of the novel potent antirheumatic  
4-(2,4'-difluorobiphenyl-4-yl)-2-methyl-4-oxobutanoic acid.  
AU Panajotova V; Anderova E; Jandera A; Kuchar M  
CS VUFB, a.s. (Research Institute for Pharmacy and Biochemistry),  
Prague,  
Czech Republic.

SO ARZNEIMITTEL-FORSCHUNG, (1997 May) 47 (5) 648-52.  
Journal code: 9IU. ISSN: 0004-4172.  
CY GERMANY: Germany, Federal Republic of  
DT Journal; Article; (JOURNAL ARTICLE)  
LA English  
FS Priority Journals  
EM 199710

EW 19971003  
AB On the basis of basic \*\*\*screening\*\*\* for novel, more potent  
antiarthritics VUFB-16066  
(4-(2,4'-difluorobiphenyl-4-yl)-2-methyl-4-  
oxobutanoic acid, CAS 112344-S2-2) was chosen as a compound  
with  
pronounced anti-inflammatory and immunomodulatory effects, with  
good  
gastric tolerance and relatively low toxicity. VUFB-16066 is a dual  
cyclooxygenase and 5-lipoxygenase inhibitor, and it suppresses  
allergen-driven cellular immune response and phagocytosis of  
stimulated  
peritoneal cells. VUFB-16066 exhibits prolonged pharmacological  
activity  
connected with its major metabolite having a very long half-life. In  
the  
\*\*\*model\*\*\* of adjuvant arthritis VUFB-16066 improves most  
of disease  
symptoms including immunopathological disturbances, which  
indicates  
possible disease-modifying activity of the drug. The beneficial  
antiarthritic effect of VUFB-16066 has been also confirmed in  
patients  
with \*\*\*rheumatoid\*\*\* and \*\*\*arthritis\*\*\*.

L15 ANSWER 3 OF 9 MEDLINE  
AN 95149828 MEDLINE  
DN 95149828  
TI Antirheumatic drug profiles evaluated in the adjuvant arthritis of  
rats by  
multiparameter analysis.

AU Theisen-Popp P; Muller-Peddinghaus R  
CS Bayer A. G. Wuppertal, Germany.  
SO AGENTS AND ACTIONS, (1994 Aug) 42 (1-2) 50-5.  
Journal code: 2XZ. ISSN: 0065-4299.

CY Switzerland  
DT Journal; Article; (JOURNAL ARTICLE)  
LA English  
FS Priority Journals

- EM 199505  
AB Freund's adjuvant arthritis (FAA) in susceptible rats (male, Lewis strain)  
is a well-established experimental \*\*\*model\*\*\* of \*\*\*rheumatoid\*\*\*  
\*\*\*arthritis\*\*\* to evaluate inherent drug properties, i.e. anti-inflammatory and/or immunosuppressive/immunomodulatory properties which are only ascertained by combining multiple parameter analysis. We employed a synoptic multiparametric evaluation system for the multifaceted FAA, a so-called 'spider scheme', to facilitate a more rapid and easier comparison of qualitative and quantitative drug properties by visual display than that achieved by mere tabulation of the data. The spider scheme comprised six well-established parameters to evaluate the disease (primary and secondary hind paw swelling, arthritic index which included macroscopic alterations of non-injected paws, nose, ears and tail, body weight changes and relative organ weights of thymus and spleen). By calculation of an index as a percent change in comparison to control and untreated diseased animals, the degree of improvement or impairment of the FAA by a tested compound could easily be entered into the spider scheme. The FAA parameter spider scheme clearly differentiated the most beneficial immunomodulatory properties of cyclosporin A from those of the immunosuppressive agents dexamethasone and cyclophosphamide as well as from the mere anti-inflammatory cyclooxygenase inhibitors. Among this latter class of non-steroidal anti-inflammatory compounds, a similar profile was demonstrated for indometacin and diclofenac, as well as for tenidap, which is claimed to have cytokine-modulating properties, as reflected by the reduction of acute-phase proteins in patients with \*\*\*rheumatoid\*\*\* \*\*\*arthritis\*\*\*. Yet, in this FAA \*\*\*model\*\*\*, with tenidap, no additional qualitative drug properties could be discerned (ABSTRACT TRUNCATED AT 250 WORDS)
- L15 ANSWER 4 OF 9 MEDLINE  
AN 9424223 MEDLINE  
DN 9424223  
TI A clinical and biochemical assessment of methotrexate in \*\*\*rheumatoid\*\*\* \*\*\*arthritis\*\*\*  
AU Tait J; Le Gallez P; Astbury C; Bird H A
- CS Clinical Pharmacology Unit (Rheumatism Research) Royal Bath Hospital, North Yorkshire, United Kingdom.  
SO CLINICAL RHEUMATOLOGY, (1994 Mar) 13 (1) 75-9.  
Journal code: D16. ISSN: 0770-3198.  
CY Belgium  
DT (CLINICAL TRIAL)  
LA English  
FS Priority Journals  
EM 199408  
AB Low-dose methotrexate has gained widespread acceptance as a second-line agent in \*\*\*rheumatoid\*\*\* \*\*\*arthritis\*\*\* (RA). The Leeds Human \*\*\*Model\*\*\* \*\*\*Screening\*\*\* System (LHMSS) is a validated \*\*\*screening\*\*\* mechanism allowing the rapid evaluation of compounds for their potential as anti-rheumatic agents, the results of which have been confirmed in longer term studies. We have evaluated methotrexate in patients with RA using the LHMSS at a maintenance dose of 10mg/week. Significant change occurred in four out of eleven variables over a 24-week period ( $p < 0.01$ ). This degree of change is greater than that seen with nonsteroidal anti-inflammatory agents but less than with other recognised second-line agents such as D-penicillamine, suggesting that methotrexate may have less potential as a second-line agent than D-penicillamine.
- L15 ANSWER 5 OF 9 MEDLINE  
AN 92336640 MEDLINE  
DN 92336640  
TI [Celiac disease in adults: clinical aspects--role of endoscopy]. La maladie coeliaque de l'adulte: aspects cliniques--role de l'endoscopie.  
AU Maingnet P; Degret T; Joret A; Haot J  
CS U.C.L., Cliniques Universitaires Saint-Luc, Bruxelles, Belgique.  
SO ACTA GASTROENTEROLOGICA BELGICA, (1992 Mar-Apr) 55 (2) 181-9. Ref: 65  
Journal code: ONY. ISSN: 0001-5644.  
CY Belgium  
DT Journal Article; (JOURNAL ARTICLE)  
General Review; (REVIEW) (REVIEW, TUTORIAL)  
LA French  
EM 199210  
AB Adult celiac disease has a broad clinical spectrum and remains undetected for years. Among subclinical deficiency states, attributable to coeliac
- enteropathy, combined iron and folic acid malabsorption is predominant. An unexplained recurrent iron anaemia is an indication for small intestinal biopsy. Gastro-intestinal disorders are present in only 50% of the cases. Coeliac disease is frequently associated with other major histocompatibility complex (MMC)-linked diseases which are mediated by immunological mechanisms: dermatitis herpetiformis, oral ulcerations, IgA nephropathy, \*\*\*rheumatoid\*\*\* \*\*\*arthritis\*\*\*, sarcoidosis. Dermatitis herpetiformis is a useful \*\*\*model\*\*\* for examination of the spectrum of mucosal changes that typify gluten sensitivity and subclinical lesions without villous atrophy. An increased interest is devoted to the intra-epithelial T-lymphocyte population, not only in the small intestine, but at the level of the stomach and the colon. A 'rectal challenge' test has been proposed for detecting gluten sensitivity in coeliac patients. Such a test could be an original method of \*\*\*screening\*\*\*, reducing so the need of small intestinal biopsy. The preliminary results are to be confirmed. Until now, jejunoscopy remains mandatory for the diagnosis and the survey of intestinal lesions related to coeliac disease.
- L15 ANSWER 6 OF 9 MEDLINE  
AN 91295099 MEDLINE  
DN 91295099  
TI C-reactive protein as an index of disease activity. Comparison of cyclophosphamide and dexamethasone in rat adjuvant arthritis.  
AU Ottermess I G; Pazoles P P; Moore P F; Pepsys M B  
CS Pfizer Central Research Division, Department of Immunology and Infectious Diseases, Groton, CT 06340.  
SO JOURNAL OF RHEUMATOLOGY, (1991 Apr) 18 (4) 505-11.  
Journal code: JWX. ISSN: 0315-162X.  
CY Canada  
DT Journal Article; (JOURNAL ARTICLE)  
LA English  
FS Priority Journals  
EM 199110  
AB C-reactive protein (CRP) concentrations are a useful plasma protein measure that correlate with disease severity and radiographic progression in \*\*\*rheumatoid\*\*\* \*\*\*arthritis\*\*\* (RA). We compared 3 drugs with different mechanisms, i.e., tenidap, dexamethasone and cyclophosphamide, on both CRP levels and soft tissue swelling in the rat adjuvant arthritis

\*\*\*model\*\*\* . CRP rose from a normal concentration of approximately 400 micrograms/ml during the first phase of adjuvant arthritis to approximately 1200 micrograms/ml (primary response), then fell to approximately 900 micrograms/ml and rose again as the disease became systemic during the secondary response to approximately 1400 micrograms/ml. When treatment was administered prophylactically, tenidap and dexamethasone suppressed both the primary and secondary CRP and swelling responses. Cyclophosphamide was without effect in the primary response, but inhibited both swelling and CRP in the secondary response. When \*\*\*therapeutic\*\*\* treatment was begun after secondary disease was established, only tenidap and dexamethasone inhibited CRP and swelling. Both dexamethasone and cyclophosphamide decreased lymphocyte numbers during treatment whereas lymphocyte numbers were elevated during tenidap treatment, suggesting a different mechanism of action for tenidap. CRP levels were more closely linked to the rate of change of paw swelling (disease progression) than to paw volume.

L15 ANSWER 7 OF 9 MEDLINE  
AN 91153918 MEDLINE  
DN 91153918  
TI Murine delayed-type hypersensitivity granuloma: an improved \*\*\*model\*\*\* for the identification and evaluation of different classes of anti-arthritis drugs.  
AU Dunn C J; Galinet L A; Gibbons A J; Shields S K  
CS Department of Hypersensitivity Disease Research, Upjohn Company, Kalamazoo, Michigan 49001.  
SO INTERNATIONAL JOURNAL OF IMMUNOPHARMACOLOGY, (1990) 12 (8) 899-904.  
Journal code: GRI ISSN: 0192-0561.  
CY ENGLAND: United Kingdom  
DT Journal; Article; (JOURNAL ARTICLE)  
LA English  
FS Priority Journals  
EM 199106  
AB The present study examined the effects of five different classes of anti-inflammatory/immunoregulatory drugs using a mouse mBSA-induced delayed-type hypersensitivity granuloma (DTH GRA) to measure immune-mediated chronic inflammatory tissue formation. The compounds were administered orally daily following induction of DTH GRA (days 0

to 4); granulomata were quantitated gravimetrically on day 5. NSAIDs, with the exception of flurbiprofen, showed little activity in comparison with the steroids dexamethasone (1-3 mg/kg/day, orally) and prednisolone (3-10 mg/kg/day, orally), which caused significant suppression of DTH GRA tissue (65-76% and 26-68%, respectively). The "immunoregulatory" compounds levamisole and D(-)penicillamine were inactive, whereas cyclophosphamide (5-50 mg/kg/day, orally) reduced the response by 24-83%. The "interferon alpha-inducers" Tilorone, U-54,461, and U-56,499 were also potent inhibitors of the DTH GRA response; U-54,462, a weak interferon alpha-inducer, was inactive. Cyclosporin A (50-100 mg/kg/day, orally) suppressed DTH GRA most effectively when administered on days 3 and 4 (66% and 97% of the five-day granuloma response (treatment was ineffective when given on days 1 and 2). We conclude that the DTH GRA response described above may be useful for evaluating different types of unique \*\*\*therapeutic\*\*\* agents that are effective in the treatment of chronic immuno-inflammatory disease such as \*\*\*rheumatoid\*\*\* \*\*\*arthritis\*\*\*

L15 ANSWER 8 OF 9 MEDLINE  
AN 86115177 MEDLINE  
DN 86115177  
TI Studies on the effect of low dose methotrexate on rat adjuvant arthritis.  
AU Welles W L; Silkworth J; Oronsky A L; Kerwar S S; Galivan J  
NC CA 25933 (NCI)  
SO JOURNAL OF RHEUMATOLOGY, (1985 Oct) 12 (5) 904-6.  
Journal code: JWX ISSN: 0315-162X.  
CY Canada  
DT Journal; Article; (JOURNAL ARTICLE)  
LA English  
FS Priority Journals  
EM 198605  
AB Adjuvant arthritis in rats was induced by the intradermal administration of Freund's complete adjuvant. When these immunized rats were treated orally with low doses of methotrexate (150-600 micrograms/kg/week) a statistically significant suppression of paw inflammation was observed. This low dose of methotrexate was comparable to that used in the

of human \*\*\*rheumatoid\*\*\* \*\*\*arthritis\*\*\* (RA). Our results are the first demonstration of the efficacy of low dose methotrexate in an animal \*\*\*model\*\*\* of human RA.

L15 ANSWER 9 OF 9 MEDLINE  
AN 75205164 MEDLINE  
DN 75205164  
TI Chemistry and pharmacology of naproxen.  
AU Dorfman R I  
SO ARZNEIMITTEL-FORSCHUNG, (1975 Feb) 25 (2A) 278-81.  
Journal code: 91U ISSN: 0004-4172.  
CY GERMANY, WEST: Germany, Federal Republic of  
DT Journal; Article; (JOURNAL ARTICLE)  
LA English  
FS Priority Journals  
EM 197511  
AB The need for a nonsteroidal anti-inflammatory agent effective in \*\*\*rheumatoid\*\*\* \*\*\*arthritis\*\*\*, osteoarthritis, gout, ankylosing spondylitis and related diseases with reduced side effects when compared to existing drugs led us to develop naproxen: d-2-(6-methoxy-2-naphthyl)-propionic acid. This new agent is a highly effective anti-inflammatory, analgesic, and antipyretic agent in the rodent administered orally. In a rat paw edema test for anti-inflammatory activity naproxen was 55 times more active than aspirin. Analgesic activity was assessed by three different assay procedures. In the mouse phenylquinone writhing test naproxen was 7 times as effective as aspirin. In the rat yeast-induced paw edema and the rat carrageenin paw edema analgesic assays the test compound was 10 and 20 times more effective than aspirin, respectively. A yeast-induced pyresis \*\*\*model\*\*\* in the rat indicated that naproxen was 22 times more potent than the standard aspirin. The relative potency of naproxen to phenylbutazone and indometacin is presented.

=> this

(FILE HOME ENTERED AT 13:51:53 ON 25 JUL 2000)

FILE 'MEDLINE' ENTERED AT 13:52:00 ON 25 JUL 2000

L1 16359 S BREEDING/AB,BI  
L2 139 S L1 AND BALB/AB,BI  
L3 5 S L2 AND TRAIT/AB,BI  
L4 33308 S RHEUMATOID ARTHRITIS/AB,BI  
L5 9 S L4 AND BREED/AB,BI

FILE MEDLINE, EMBASE, BIOSIS, INPADOC, CAPLUS  
ENTERED AT 13:57:45 ON 25

JUL 2000  
L6 34 S L5  
L7 21 DUP REM L6 (13 DUPLICATES REMOVED)  
L8 7 S L7 AND BREEDING/AB,BI  
L9 12601 S ARTHRITIS AND MODEL/AB,BI  
L10 3695 S L9 AND (MICE OR MOUSE)/AB,BI  
L11 20 S L10 AND PROGENY/AB,BI  
L12 9 DUP REM L11 (11 DUPLICATES REMOVED)

FILE MEDLINE/ENTERED AT 14:04:55 ON 25 JUL 2000

L13 272 S RHEUMATOID ARTHRITIS AND  
SCREENING/AB,BI  
L14 76 S L13 AND THERAPY/AB,BI  
L15 9 S L14 AND MODEL/AB,BI

=> s balb?/ab,bi

69950 BALB?/BI  
5361026 AB/FA  
22759 BALB?/AB  
(BALB?/BI (L) AB/FA)  
69950 BALB?/BI  
L16 69950 BALB?/AB,BI

=> s l16 and arthritis/ab,bi

84571 ARTHRITIS/BI  
5361026 AB/FA  
37193 ARTHRITIS/AB  
(ARTHRITIS/BI (L) AB/FA)  
84571 ARTHRITIS/BI  
L17 368 L16 AND ARTHRITIS/AB,BI

=> s l17 and model/ab,bi

336283 MODEL/BI  
5361026 AB/FA  
298097 MODEL/AB  
(MODEL/BI (L) AB/FA)  
336283 MODEL/BI  
L18 79 L17 AND MODEL/AB,BI

=> s l18 and rheumatoid/ab,bi

62441 RHEUMATOID/BI  
5361026 AB/FA  
27717 RHEUMATOID/AB  
(RHEUMATOID/BI (L) AB/FA)  
62441 RHEUMATOID/BI  
L19 43 L18 AND RHEUMATOID/AB,BI

=> s l19 and screen?/ab,bi

170430 SCREEN?/BI  
5361026 AB/FA

112946 SCREEN?/AB  
(SCREEN?/BI (L) AB/FA)

170430 SCREEN?/BI  
L20 0 L19 AND SCREEN?/AB,BI

=> s l18 and screen?/ab,bi

170430 SCREEN?/BI  
5361026 AB/FA  
112946 SCREEN?/AB

(SCREEN?/BI (L) AB/FA)  
170430 SCREEN?/BI

L21 1 L18 AND SCREEN?/AB,BI  
=> d bib ab

L21 ANSWER 1 OF 1 MEDLINE

AN 1998283922 MEDLINE  
DN 98283922

TI The preclinical pharmacological profile of the potent and selective  
leukotriene B4 antagonist CP-195543.

AU Showell H J, Conklyn M J, Alpert R, Hingorani G P, Wright K  
F, Smith M A;

Stam E, Salter E D, Scamporrì D N, Meltzer S, Reiter L A, Koch  
K, Piscopio

A D, Cortina S R; Lopez-Anaya A; Pettipher E R; Milici A J;

Griffiths R J

CS Department of Cancer, Immunology and Infectious Diseases,  
Pfizer Inc,

Groton, Connecticut, USA.

SO JOURNAL OF PHARMACOLOGY AND EXPERIMENTAL  
THERAPEUTICS, (1998 Jun) 285 (3)

946-54

Journal code: JP3. ISSN: 0022-3565.

CY United States

DT Journal; Article; (JOURNAL ARTICLE)

LA English

FS Priority Journals

EW 19980902

AB CP-195543

[(+)-2-(3-benzyl-4-hydroxy-chroman-7-yl)-4-trifluoromethyl-  
benzoic acid] is a structurally novel, selective and potent  
leukotriene B4

(LTB4) receptor antagonist. In vitro CP-195543 inhibited  
[3H]LTB4 binding

to high-affinity LTB4 receptors on human neutrophils (HN) and  
murine

spleen membranes with IC50 values of 6.8 nM (Ki = 4.9 nM) and  
37.0 nM (Ki

= 26.9 nM), respectively. CP-195543 inhibited human and mouse  
neutrophil

chemotaxis mediated by LTB4 with IC50 values of 2.4 nM and 7.5  
nM,

respectively. Evidence of noncompetitive antagonist effects on the  
HN

high-affinity LTB4 receptor was obtained by Scatchard analysis of  
[3H]LTB4

binding to and chemotaxis of HN to LTB4. Scatchard analyses of  
[3H]LTB4

binding to low-affinity receptors on HN indicated that CP-195543  
acted as

a competitive antagonist at this receptor, and inhibition of

LTB4-mediated

CD11b up-regulation on HN was inhibited competitively by  
CP-195543 (pA2 =

7.66). In whole blood, CP-195543 also blocked CD11b

up-regulation on HN

(pA2 = 7.12) and murine neutrophils (pA2 = 7.06) with a similar  
potency.

LTB4-mediated CD11b up-regulation on human monocytes and  
eosinophils in

whole blood were inhibited by CP-195543 with IC50 values of 270  
nM and 420

nM, respectively. CP-195543 at 10 microM failed to inhibit HN  
chemotaxis

and CD11b up-regulation mediated through alternative (i.e.,  
complement

fragment 5a, interleukin-8, platelet-activating factor)

G-protein-coupled

chemotactic factor receptors. In vivo, after oral administration,  
CP-195543 blocked LTB4-mediated neutrophil infiltration in

guinea pig and

murine skin with ED50 values of 0.1 mg/kg and 2.8 mg/kg p.o.,  
respectively. When administered in osmotic pumps, CP-195543

reduced the

clinical symptoms and attendant weight loss in an IL-1-exacerbated  
murine

\*\*\*model\*\*\* of collagen-induced \*\*\*arthritis\*\*\* with  
half-maximal

effects associated with plasma drug levels of 0.4 to 0.5 microg/ml.  
Collectively these data provide evidence of the in vitro potency and

in vivo efficacy of a novel LTB4 antagonist and support its clinical  
evaluation in a variety of inflammatory diseases in man.

=> file medline embase biosis inpadoc caplus

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FILE 'MEDLINE' ENTERED AT 13:52:00 ON 25 JUL 2000

L1 16359 S BREEDING/AB,BI  
L2 139 S L1 AND BALB/AB,BI  
L3 5 S L2 AND TRAIT/AB,BI  
L4 35308 S RHEUMATOID ARTHRITIS/AB,BI  
L5 9 S L4 AND BREED/AB,BI

FILE 'MEDLINE, EMBASE, BIOSIS, INPADOC, CAPLUS'  
ENTERED AT 13:57:45 ON 25  
JUL 2000

L6 34 S L5  
L7 21 DUP REM L6 (13 DUPLICATES REMOVED)  
L8 7 S L7 AND BREEDING/AB,BI  
L9 12601 S ARTHRITIS AND MODEL/AB,BI  
L10 3693 S L9 AND (MICE OR MOUSE)/AB,BI  
L11 20 S L10 AND PROGENY/AB,BI  
L12 9 DUP REM L11 (11 DUPLICATES REMOVED)

FILE 'MEDLINE' ENTERED AT 14:04:55 ON 25 JUL 2000

L13 272 S RHEUMATOID ARTHRITIS AND  
SCREENING/AB,BI

L14 76 S L13 AND THERAPY/AB,BI  
L15 9 S L14 AND MODEL/AB,BI  
L16 69950 S BALB/AB,BI  
L17 368 S L16 AND ARTHRITIS/AB,BI  
L18 79 S L17 AND MODEL/AB,BI  
L19 43 S L18 AND RHEUMATOID/AB,BI  
L20 0 S L19 AND SCREEN/AB,BI  
L21 1 S L18 AND SCREEN/AB,BI

FILE 'MEDLINE, EMBASE, BIOSIS, INPADOC, CAPLUS'  
ENTERED AT 14:09:35 ON 25  
JUL 2000

=> s l21

'AB' IS NOT A VALID FIELD CODE  
L22 1 L21

=> s l19

'AB' IS NOT A VALID FIELD CODE  
L23 125 L19

=> s l23 and (drug# or therap?)/ab,bi

2 FILES SEARCHED...

'AB' IS NOT A VALID FIELD CODE  
L24 44 L23 AND (DRUG# OR THERAPY)/AB,BI

=> dup rem l24

PROCESSING COMPLETED FOR L24  
L25 36 DUP REM L24 (8 DUPLICATES REMOVED)

=> d l- bib ab

YOU HAVE REQUESTED DATA FROM 36 ANSWERS -  
CONTINUE? Y(N)Y

L25 ANSWER 1 OF 36 EMBASE COPYRIGHT 2000 ELSEVIER  
SCI. B.V.

AN 2000204547 EMBASE

TI In vitro and in vivo inhibition of activation induced T cell  
apoptosis by  
bucillamine.

AU Okazaki H.; Sato H.; Kamimura T.; Hirata D.; Iwanoto M.;  
Yoshio T.; Mimori

A.; Masuyama J.-I.; Kano S.; Minota S.

CS Dr. S. Minota, Div. of Rheumatol./Clin. Immunology,

Department of

Medicine, Jichi Medical School, Minamikawachi-Machi,  
Tochigi-Ken 329-04,

Japan

SO Journal of Rheumatology, (2000) 27/6 (1358-1364).

Refs: 36

ISSN: 0315-162X CODEN: JRHUA

CY Canada

DT Journal; Article

FS 031 Arthritis and Rheumatism

037 Drug Literature Index

LA English

SL English

AB Objective. To investigate the mechanism of autoimmune  
phenomena,

occasionally seen in patients with \*\*\*rheumatoid\*\*\*

\*\*\*arthritis\*\*\*

evaluating  
their effects on apoptosis of T cells induced by T cell receptor  
activation or dexamethasone. Methods. In vitro apoptosis was

induced in a  
T cell hybridoma (SSP3.7) and a B cell line (WEHI 231) by

activation of

respective receptors or dexamethasone, in the presence or absence  
of BUC

or D-Pen. In vivo apoptosis was induced in \*\*\*BALB\*\*\* /c

mice by  
staphylococcal enterotoxin B (SEB), with or without BUC or  
D-Pen, and  
thymocytes were examined for it by FACS. Results. Stimulation  
with  
anti-CD3 and dexamethasone induced apoptosis in 72% and 71%  
of SSP3.7  
cells, respectively. However, only 16% of SSP3.7 cells became  
apoptotic by  
anti-CD3 when BUC was added to the culture media. By contrast,  
80% of  
SSP3.7 cells became apoptotic when stimulated by dexamethasone,  
even in  
the presence of BUC. BUC did not affect apoptosis of WEHI 231  
cells

induced by anti-IgM. Although SA981 (a metabolite of BUC)  
inhibited

apoptosis of SSP3.7 cells induced by anti-CD3, D-Pen did not.  
BUC, SA981,

or D-Pen did not significantly influence the level of interleukin 2  
secretion stimulated by anti-CD3. In contrast, both BUC and D-Pen  
inhibited apoptosis of V beta 8+ thymocytes induced in vivo by  
SEB

superantigen. Neither BUC nor D-Pen significantly changed the  
number of

CD4+CD8+ thymocytes in \*\*\*BALB\*\*\* /c mice injected with  
dexamethasone.

Conclusion. BUC decreased, while D-Pen did not, the apoptosis of  
T cells

stimulated by anti-CD3 in vitro, although they both inhibited the  
deletion

of immature thymocytes reactive with SEB in vivo. This may  
explain

autoimmune phenomena sometimes seen during the treatment of  
rheumatic

patients with these \*\*\*drugs\*\*\*.

L25 ANSWER 2 OF 36 EMBASE COPYRIGHT 2000 ELSEVIER  
SCI. B.V.

AN 2000102718 EMBASE

TI A novel dual regulator of tumor necrosis factor- alpha. and  
interleukin-10

protects mice from endotoxin-induced shock.

AU Fukuda T.; Sumichika H.; Murata M.; Hanano T.; Adachi K.;  
Hisadome M.

CS T. Fukuda, Research Laboratories, Yoshitomi Pharmaceutical  
Industries, 955

Koiwai, Yoshitomi-cho, Chikugo-gun, Fukuoka 871-8550, Japan  
SO European Journal of Pharmacology, (17 Mar 2000) 391/3  
(317-320).

Refs: 8

ISSN: 0014-2999 CODEN: EJPJAZ

PUI S 0014-2999(00)00096-0

CY Netherlands

DT Journal; Article

FS 029 Clinical Biochemistry

030 Pharmacology



LA English

SL English

AB A pyrimidinylpiperazine derivative,

N-[1-(4-{[4-(pyrimidin-2-yl)piperazin-1-

yl]methyl}phenyl)pyrrolidinyl]acetamide (Y-39041), is a dual

cytokine

regulator of tumor necrosis factor (TNF)-alpha, and interleukin-10

production. Lipopolysaccharide-induced TNF-alpha release in

\*\*\*BALB\*\*\*

c mice was inhibited by the oral treatment with the compound at

10-100

mg/kg (about 80% suppression) while interleukin-10 release was

augmented

(about 10-fold increase at 30 mg/kg). In addition, Y-39041 (30

mg/kg, p.o.) completely protected mice from lipopolysaccharide-induced

death by

the treatment before and after lipopolysaccharide injection. The

finding

that Y-39041 suppresses TNF-alpha production and stimulates

interleukin-10 production at the same time provides new insights

for the

treatment of septic shock, \*\*\*rheumatoid\*\*\* \*\*\*arthritis\*\*\*

and

Crohn's diseases. Copyright (C) 2000 Elsevier Science B.V.

L25 ANSWER 3 OF 36 MEDLINE

1

AN 1999226861 MEDLINE

DN 99226861

TI Modulation of hyaluronan receptor (CD44) function in vivo in a

murine

\*\*\*model\*\*\* of \*\*\*rheumatoid\*\*\* \*\*\*arthritis\*\*\*

AU Mikecz K; Dennis K; Shi M; Kim J H

CS Rush-Presbyterian-St. Luke's Medical Center, Chicago, Illinois

60612, USA

NC AR-44126 (NIAMS)

SO ARTHRITIS AND RHEUMATISM, (1999 Apr) 42 (4) 659-68.

Journal code: 90M. ISSN: 0004-3591.

CY United States

DT Journal; Article; (JOURNAL ARTICLE)

LA English

FS Abridged Index Medicus Journals; Priority Journals

EM 199907

EW 19990702

AB OBJECTIVE: To determine how in vivo modulation of CD44

antibodies influences disease severity in a murine \*\*\*model\*\*\*

of

\*\*\*rheumatoid\*\*\* \*\*\*arthritis\*\*\*. METHODS: Mice with

proteoglycan

(PG)-induced \*\*\*arthritis\*\*\* were subjected to systemic

treatment with

3 different monoclonal antibodies against CD44. Joint swelling and

serum

levels of hyaluronan (HA) and soluble CD44 (sCD44) were

monitored.

Inflammatory leukocyte infiltration in the joints, cell surface CD44

expression, and leukocyte adhesion to HA were compared. The

effects of

anti-CD44 treatment on the immune status of arthritic animals were

also

determined. RESULTS: Antibody IRAWB14, which enhances HA

binding,

aggravated the inflammatory symptoms, while KM201, which

blocks ligand

binding, reduced the severity of \*\*\*arthritis\*\*\*. The most

effective

suppression of inflammation was noted upon treatment with

antibody IM7,

whose epitope lies outside the HA binding domain of CD44. Serum

levels of

sCD44 increased, and HA levels decreased, in response to IM7.

KM201 and

IM7 treatment reduced, but IRAWB14 treatment enhanced, the

adhesion of

leukocytes to HA. However, these antibodies had little effect on

PG-specific immune responses. CONCLUSION: Each antibody

acted in vivo by

virtue of its combined effects on CD44-HA binding and CD44

shedding. The

dramatic reduction in \*\*\*arthritis\*\*\* severity effected by IM7

treatment was associated with extensive shedding of cell surface

CD44

CD44.

Our

study indicates a critical role for CD44 in the pathology of joint

inflammation and reveals a unique mechanism of receptor

down-regulation,

which can be used \*\*\*therapeutically\*\*\*.

L25 ANSWER 4 OF 36 MEDLINE

AN 2000075381 MEDLINE

DN 20075381

TI Functional definition of a B cell epitope, KGEQGEPGA, on C1q

the

Fe-binding subunit of the first component of complement.

AU Trinder P K; Marker-Hermann E; Loos M; Mäurer M J

CS Institute of Medical Microbiology &amp; Hygiene, Hochhaus am

Augustusplatz,

Mainz, Germany.

SO SCANDINAVIAN JOURNAL OF IMMUNOLOGY, (1999

Dec) 50 (6) 635-41.

Journal code: UCW. ISSN: 0300-9475.

CY ENGLAND; United Kingdom

DT Journal; Article; (JOURNAL ARTICLE)

LA English

FS Priority Journals; Cancer Journals

EM 200003

EW 20000303

AB A synthetic peptide representing the C1q epitope KGEQGEPGA

has been shown

to suppress or delay the onset of CII-induced \*\*\*arthritis\*\*\*

when

applied intravenously (i.v.) prior to an intradermal (i.d.) challenge,

in

a mouse \*\*\*model\*\*\*; the phenomenon being associated with

the

development of immunoglobulin (IgM) antibodies specific for the

KGEQGEPGA

epitope. Here we show that this amino acid sequence provides an

immunodominant B cell epitope that is recognised by

autoantibodies present

in the sera of patients with chronic inflammatory diseases such as

systemic lupus erythematosus (SLE) and \*\*\*rheumatoid\*\*\*

\*\*\*arthritis\*\*\*, two diseases associated with an immune

response to C1q.

The peptide's ability to produce peptide specific IgM when applied

i.v. in

both normal and athymic mice but not in mice exhibiting the

x-linked

B-cell associated Bruton's tyrosine kinase defect permits

classification

of the KGEQGEPGA peptide as a T-cell independent antigen

type-2 (TI-2).

IgM monoclonal antibodies raised against the peptide are able to

functionally block activation of the complement cascade by C1q,

via a

mechanism that inhibits the C4 consumption. Antibodies to this

immunodominant epitope may therefore modulate inflammatory

processes by

interfering with the activation of the classical pathway of the

complement.

L25 ANSWER 5 OF 36 MEDLINE

AN 1999132578 MEDLINE

DN 99132578

TI Methotrexate specifically modulates cytokine production by T

cells and

macrophages in murine collagen-induced \*\*\*arthritis\*\*\* (CIA).

a

mechanism for methotrexate-mediated immunosuppression.

AU Neurath M F; Hildner K; Becker C; Schlaak J F; Barbaulescu K;

Germann T;

Schmitt E; Schirmacher P; Haralambous S; Pasparakis M; Meyer

Zum

Buschenfelde K H; Kollias G; Marker-Hermann E

CS Laboratory of Immunology, I Medical Clinic, University of

Mainz, Germany.

SO CLINICAL AND EXPERIMENTAL IMMUNOLOGY, (1999

Jan) 115 (1) 42-55.

Journal code: DD7. ISSN: 0009-9104.

CY ENGLAND; United Kingdom

DT Journal; Article; (JOURNAL ARTICLE)

LA English

FS Priority Journals; Cancer Journals

EM 199904

EW 19990403

AB Immunosuppressive \*\*\*therapy\*\*\* with methotrexate (MTX) has been established as effective treatment for patients with \*\*\*rheumatoid\*\*\*  
\*\*\*arthritis\*\*\*. To analyse the \*\*\*therapeutic\*\*\* potential and mechanisms of action of MTX, we determined serum cytokine levels and cytokine production by splenic T cells and macrophages in untreated and MTX-treated mice. Furthermore, we assessed the role of MTX in a murine \*\*\*model\*\*\* of experimental \*\*\*arthritis\*\*\* induced by collagen type II (CIA). MTX reduced spontaneous and IL-15-induced tumour necrosis factor (TNF) production by splenic T cells but not by macrophages from healthy mice in a dose-dependent manner. In contrast, interferon-gamma (IFN-gamma) production was less strikingly reduced and IL-4 production was virtually unaffected. In addition, treatment of healthy mice with MTX in vivo led to reduced TNF serum levels and diminished TNF production by splenic T cells and macrophages. Intraperitoneal administration of MTX prior to the onset of \*\*\*arthritis\*\*\* completely prevented clinical and pathological signs of CIA. This was associated with a striking reduction of TNF production by spleen cells from MTX-treated mice. The role of TNF in MTX-mediated effects on cytokine production was further underlined by the finding that MTX effects on IFN-gamma production were augmented in TNF-transgenic mice but abrogated in mice in which the TNF-alpha gene had been inactivated by homologous recombination. Thus, MTX specifically modulates spontaneous and IL-15-induced TNF-alpha production in mice and prevents experimental murine CIA. These data suggest that TNF production by T cells is an important target of MTX and may serve as a basis to understand and further analyse MTX-mediated mechanisms of immunosuppression in patients with RA.

L25 ANSWER 6 OF 36 BIOSIS COPYRIGHT 2000 BIOSIS  
AN 1998:407141 BIOSIS  
DN PREV19980407141  
TI Antitumor effect of gold as revealed by growth suppression of cultured

cancer cells.

AU Koide, Tatsuro; Kojima, Takashi; Kamei, Hideo (1)  
CS (1) 2 Suemon-dori, Chikusa, Nagoya 464-0821 Japan  
SO Cancer Biotherapy & Radiopharmaceuticals, (June, 1998) Vol. 13, No. 3, pp. 189-192.

ISSN: 1084-9785.

DT Article

LA English

AB Gold agents have been widely used for the treatment of \*\*\*rheumatoid\*\*\*. We studied the growth inhibiting effect of such \*\*\*arthritis\*\*\* agent on malignant cells in vitro. HCT-15, AGS cells derived from a human malignancy, and Meth/A cells from a malignant lymphoma of \*\*\*Balb\*\*\* /C mice were cultured separately with gold agent at concentrations of 2 mug/ml. Four days after the cultures had been incubated in a 5% CO<sub>2</sub> incubator at 37degreeC, cell counts were made; and significance of differences was analyzed by Student's t test. Additionally, HCT-15 cells were cultured with gold for two days, and then the cells were analyzed by flow cytometry. The growth of HCT-15, AGS, and Meth/A cells was suppressed by gold. Fifty percent suppression was observed at a concentration between 50 mug/ml and 10 mug/ml for HCT-15 cells, between 125 mug/ml and 50 mug/ml for AGS cells, and between 125 mug/ml and 50 mug/ml for Meth/A cells.

Fifty percent suppression of HCT-15 cell growth by displateinum was found between 50 mug/ml and 10 mug/ml. Flow cytometric findings showed a significant rise in the tetraploid peak, a mild rise in the region between diploid and tetraploid peaks, and an increase in cells with a ploidy greater than four. These data suggest that gold blocks the S phase, G2 to M phase, and M phase as well. To observe the cytotoxicity of gold, each of 10 of 4 week-old \*\*\*Balb\*\*\* /C mice was injected s. c. at a dose of 10 mg/kg or 2 mg/kg every other day for a total of 3 injections, or was administered the gold at 30 mg/kg/day p.o. injected s.c. one time into each of 10 mice, and 60% of the animals died within 10 days after the injection.

L25 ANSWER 7 OF 36 BIOSIS COPYRIGHT 2000 BIOSIS  
AN 1998:323640 BIOSIS  
DN PREV19980323640  
TI The role of platelet activating factor and other lipid mediators in

inflammatory angiogenesis

AU Jackson, Jeffrey R. (1); Bolognese, Brian; Mangar, Clare A.; Hubbard.

Walter C.; Marshall, Lisa A.; Winkler, James D.

CS (1) Dep. Immunopharmacol., UW2532, SmithKline Beecham Pharmaceuticals, 709

Swedeland Rd., King of Prussia, PA 19406 USA

SO Biochimica et Biophysica Acta, (May 20, 1998) Vol. 1392, No. 1, pp. 145-152.

ISSN: 0006-3002.

DT Article

LA English

AB Chronic inflammatory diseases are often accompanied by intense angiogenesis. A \*\*\*model\*\*\* of inflammatory angiogenesis is the murine air pouch granuloma which has a hyperangiogenic component. Proinflammatory lipid mediator generation is also a hallmark of chronic inflammation and the role of endogenous production of these mediators in angiogenesis is not known. The 14 kDa phospholipase A2 (PLA2) deacylates phospholipid, liberating arachidonic acid, which is used for leukotriene production, and lysophospholipid, which can drive the production of platelet-activating factor (PAF). Therefore, SB 203347, an inhibitor of the 14 kDa PLA2, zileuton, an inhibitor of 5-lipoxygenase, and Ro 24-4736 a PAF receptor antagonist were evaluated for their effects in the murine air pouch granuloma. SB 203347 reduced both LTB4 and PAF, but not PGD2 levels measured in the day 6 granuloma. This correlated with a significant reduction in angiogenesis. Zileuton reduced LTB4 levels as expected, but did not significantly inhibit angiogenesis, whereas Ro 24-4736 reduced angiogenesis. These data support the hypothesis that PAF, and to a lesser extent leukotrienes contribute to the angiogenic phenotype in chronic inflammation.

L25 ANSWER 8 OF 36 EMBASE COPYRIGHT 2000 ELSEVIER  
SCI B.V.DUPLICATE 2

AN 1999020861 EMBASE

TI Susceptibility of human synovial cells in four strains of SCID mice.

AU Abe C.; Yamada H.; Kikukawa T.; Ishii O.; Ichikawa Y.; Hioki K.; Endo S.

CS Prof. C. Abe, S-15-3 Higashishinkoita, Tokyo 124-0023, Japan  
SO International Journal of Immunotherapy, (1998) 14(3) (129-133).

Refs: 12

ISSN: 0255-9625 CODEN: IJIMET

CY Switzerland

DT Journal; Article

FS 005 General Pathology and Pathological Anatomy  
026 Immunology, Serology and Transplantation  
031 Arthritis and Rheumatism  
LA English  
SL English  
AB Human synovial cells from patients with \*\*\*rheumatoid\*\*\*  
\*\*\*arthritis\*\*\* were transferred to four strains of severe  
combined  
immunodeficient (SCID) mice. C.B-17-SCID, \*\*\*BALB\*\*\*  
/eA-SCID,  
\*\*\*BALB\*\*\* /eA-bg-SCID (beige gene: low natural killer cell  
activity) and  
RAG2-deficient mice were studied. Synovial tissue-infiltrating  
cells were  
obtained from an explant culture of synovial tissues derived from  
patients

with \*\*\*rheumatoid\*\*\* \*\*\*arthritis\*\*\*. Synovial  
tissue-infiltrating cells were injected into the right knee and dorsal  
side of foot joint of the animals at 6 weeks of age. Five weeks after  
the  
injection, a histopathological study was carried out under light  
microscope. The study revealed evidence that transplanted human  
cells made  
characteristic lesions in the mice, i.e., multiplication of synovial  
cells, proliferation of fibroblasts, fibrin exudation  
neovascularization,  
bone and cartilage replacement by connective tissue, and pannus  
formation.

The most remarkable and characteristic lesions were observed in  
RAG2-deficient mice, then \*\*\*BALB\*\*\* /eA-bg-SCID,  
\*\*\*BALB\*\*\*

/eA-SCID and C.B-17-SCID mice, respectively. A highly  
reproducible  
experimental animal \*\*\*model\*\*\* of \*\*\*arthritis\*\*\* was  
established  
by human synovial cells under in vivo transfer circumstances. It is  
possible that the human/RAG2 chimeric \*\*\*model\*\*\* is useful  
for  
studies on the pathogenesis of \*\*\*arthritis\*\*\* and the  
development or  
evaluation of \*\*\*therapeutic\*\*\* agents.

L25 ANSWER 9 OF 36 MEDLINE  
AN 97263535 MEDLINE  
DN 97263535

TI Experimental expression in mice and spontaneous expression in  
human SLE of  
polyomavirus T-antigen. A molecular basis for induction of  
antibodies to  
DNA and eukaryotic transcription factors.

AU Røkvig O P; Moens U; Sundsfjord A; Bredholt G; Osei A;  
Haaheim H; Traavik

T; Arnesen E; Haga H J

CS Department of Immunology, University Hospital of Tromsø,  
Norway.

olepr@fagmed.uit.no

SO JOURNAL OF CLINICAL INVESTIGATION, (1997 Apr 15)  
99 (8) 2045-54.

Journal code: HS7 ISSN: 0021-9738.

CY United States

DT Journal; Article; (JOURNAL ARTICLE)

LA English

FS Abridged Index Medicus Journals; Priority Journals; Cancer  
Journals

EM 199707

EW 19970703

AB We have previously demonstrated that experimental expression  
of the

polyomavirus transcription factor T-antigen has the potential to  
induce

anti-DNA antibodies in mice. Two sets of independent evidences  
are

presented here that demonstrate a biological relevance for this  
\*\*\*model\*\*\*. First, we describe results demonstrating that mice  
inoculated with T-antigen-expressing plasmids produced  
antibodies, not

only to T-antigen and DNA, but also to the DNA-binding

eukaryotic

transcription factors TATA-binding protein (TBP), and to the

cAMP-response-element-binding protein (CREB). Secondly, we

investigated

whether polyomavirus reactivation occurs in SLE patients, and

whether  
antibodies to T-antigen, DNA, and to TBP and CREB are linked to

such

events. Both within and among these SLE patients, frequent

polyomavirus

reactivations were observed that could not be explained by certain  
rearrangements of the noncoding control regions, nor by

corticosteroid

treatment. Linked to these events, antibodies to T-antigen, DNA,

TBP, and

CREB were detected, identical to what we observed in mice.

Antibodies

recognizing double-stranded DNA were confined to patients with

frequent

polyomavirus reactivations. The results described here indicate that  
cognate interaction of B cells recognizing DNA or DNA-associated

proteins

and T cells recognizing T antigen had taken place as a consequence  
of

complex formation between T ag and DNA in vivo in the context

of

polyomavirus reactivations.

L25 ANSWER 10 OF 36 MEDLINE

AN 1998065302 MEDLINE

DN 98065302

TI Tranilast inhibits the proliferation, chemotaxis and tube formation  
of

human microvascular endothelial cells in vitro and angiogenesis in

vivo.

AU Isaji M; Miyata H; Ajiwara Y; Takehana Y; Yoshimura N

CS Discovery Research, R & D, Kissei Pharmaceutical Co., Ltd.  
Nagano-Pref.,  
Japan.

SO BRITISH JOURNAL OF PHARMACOLOGY, (1997 Nov) 122  
(6) 1061-6.

Journal code: B00 ISSN: 0007-1188.

CY ENGLAND: United Kingdom

DT Journal; Article; (JOURNAL ARTICLE)

LA English

FS Priority Journals

EM 199804

AB 1. First developed as an antiallergic \*\*\*drug\*\*\*, tranilast  
inhibits

chemical mediator release from mast cells. In the present study, we  
examine the effects of tranilast on angiogenesis in vitro and in vivo

and

discuss the application of tranilast for angiogenic diseases. 2.

Tranilast

inhibited significantly the proliferation (IC50: 136 microM, 95%  
confidence limits: 134-137 microM) and vascular endothelium

growth factor

(VEGF)-induced chemotaxis (IC50: 135 microM, 95% confidence  
limits:

124-147 microM) of human dermal microvascular endothelial cells  
(HDMVECs)

at concentrations greater than 25 micrograms ml-1. No toxicity to  
HDMVECs

measuring by LDH release and no inhibitory effects on

metalloproteinase

(MMP)-2 and MMP-9 activity were observed even at 100

micrograms ml-1 (306

microM). 3. Tube formation of HDMVECs cultured on the matrigel  
as an in

vitro angiogenesis \*\*\*model\*\*\* was inhibited by tranilast in a  
concentration-dependent manner. The IC50 value and 95%  
confidence limits

were 175 microM and 151-204 microM, respectively. 4. In vivo

angiogenesis

was induced in mice by the subcutaneous injection of matrigel  
containing

30 ng ml-1 VEGF and 64 micrograms ml-1 heparin. Tranilast was

administered

orally twice a day for 3 days. Tranilast dose-dependently suppressed  
angiogenesis in the matrigel and a significant change was observed

at a

dose of 300 mg kg-1. 5. These results indicate that tranilast is an  
angiogenesis inhibitor which may be beneficial for the

improvement of

angiogenic diseases such as proliferative diabetic retinopathy,  
age-related macular degeneration, tumour invasion and

\*\*\*rheumatoid\*\*\*

\*\*\*arthritis\*\*\*.

L25 ANSWER 11 OF 36 BIOSIS COPYRIGHT 2000 BIOSIS

AN 1997403517 BIOSIS

DN PREV19979709720

TI New nortriterpenoid isolated from anti- \*\*\*rheumatoid\*\*\*

arthritis

- plant, Tripterygium wilfordii, modulates tumor growth and neovascularization.  
AU Ushiro, Shin, Ono, Mayumi, Nakayama, Iuchihiro, Fujiwara, Tadami, Komatsu, Yasuhiro, Sugimachi, Keizo, Kuwano, Michihiko (1)  
CS (1) Dep. Biochemistry, Kyushu Univ. Sch. Med., Maidashi, Fukuoka 812-82  
Japan  
SO International Journal of Cancer, (1997) Vol. 72, No. 4, pp. 657-663.  
ISSN: 0020-7136.  
DT Article  
LA English  
AB Preparations of Tripterygium wilfordii, "Thunder God vine", have been used in China to treat \*\*\*rheumatoid\*\*\*, \*\*\*arthritis\*\*\*, \*\*\*drug\*\*\*, as well as solid tumors, is closely associated with neovascularization. Antiarthritic \*\*\*drug\*\*\* therefore may modulate tumor growth as well as neovascularization. We found that a compound purified from T. wilfordii, the nortriterpenoid, demethylzeylasteral (TZ-93), inhibited the proliferation of vascular endothelial cells approximately 30 times more effectively than it did for the proliferation of human tumor cells. In vitro assays using bovine aortic endothelial cells, TZ-93 at non-toxic doses inhibited cell migration, expression of urokinase-type plasminogen activator (uPA) mRNA and uPA activity. Exogenous addition of uPA restored the inhibitory effect of TZ-93 on cell migration. In dorsal air-sac assays in mice, the oral administration of 3 mg/kg/day TZ-93 for 5 days partially inhibited, and 30 mg/kg/day almost completely abrogated, the development of capillary networks induced by human hepatoblastoma cells. Similarly, 0.3 mg/kg/day TZ-93 partially inhibited, and 3 or 30 mg/kg/day almost completely blocked, the growth of mouse B16-F10 melanoma cells in a tumor implantation assay. The highest dose of TZ-93 significantly reduced the growth of well-vascularized tumors with volumes of more than 500 mm<sup>3</sup>. TZ-93 treatment of tumor-bearing mice significantly decreased the density of microvessels in the tumors. We conclude that TZ-93 may be useful in treating highly vascularized and metastatic tumors as well as other angiogenic diseases.

- L25 ANSWER 12 OF 36 BIOSIS COPYRIGHT 2000 BIOSIS  
AN 1997:396766 BIOSIS  
DN PREV19979695969  
TI The influence of topical application of Oeparol (evening primrose oil) on skin neovascular response induced in mice by leucocytes of \*\*\*rheumatoid\*\*\*, \*\*\*arthritis\*\*\* patients.  
AU Sommer, Ewa, Skopinska-Rozewska, Ewa, Demkow, Urszula, Balan, Barbara, Kleniewska, Danuta, Barcz, Ewa, Marczak, Maria  
CS Instytut Gruźlicy Chorob Pluc, ul. Plocka 26, 01-138 Warszawa Poland  
SO Reumatologia (Warsaw), (1997) Vol. 35, No. 2, pp. 166-170.  
ISSN: 0034-6233.  
DT Article  
LA Polish  
SL Polish, English  
AB Aberrant neovascularisation occurs in several diseases such as psoriasis, \*\*\*rheumatoid\*\*\*, \*\*\*arthritis\*\*\*, and neoplasia, and plays an important role in their pathogenesis. Antiangiogenic \*\*\*therapy\*\*\* seems to be a valuable addition to classical pharmacotherapy for diseases dependent on uncontrolled neovascularisation. It is widely known that plant substances may modulate functions of immune cells without several side effects. In recent years there have been edited a lot of reports on the beneficial effects of primrose extracts rich in unsaturated fatty acids, and different mineral substances. The aim of our study was to estimate the influence of primrose oil (Oeparol Agropharm) on angiogenic activity of human leucocytes of 7 healthy blood donors, and with excess angiogenic activity from 5 \*\*\*rheumatoid\*\*\*, \*\*\*arthritis\*\*\* patients. Cells were grafted intradermally to immunosuppressed \*\*\*Balb\*\*\* mice. On the day of implantation and on the following 2nd and 3rd day the primrose oil was applied on the sites of injection. After 72 hours mice were sacrificed and new blood vessels were counted. Primrose oil has decreased high angiogenic activity of leucocytes of \*\*\*rheumatoid\*\*\*, \*\*\*arthritis\*\*\* patients, and has had no influence on healthy donors cells.
- L25 ANSWER 13 OF 36 EMBASE COPYRIGHT 2000  
ELSEVIER SCI B.V.  
AN 97273376 EMBASE  
DN 1997273376  
TI TAK-603 selectively suppresses Th1-type cytokine production and inhibits

- the progression of adjuvant \*\*\*arthritis\*\*\*.  
AU Ohta Y., Yamane M., Sohtda T., Makino H.  
CS Dr. Y. Ohta, Pharmaceutical Research Lab. I, Takeda Chemical Industries Ltd., 17-85, Jusohomachi, 2-Chome, Yodogawa-ku, Osaka 532, Japan  
SO Immunology, (1997) 92/1 (75-83).  
Refs: 47  
ISSN: 0019-2805 CODEN: IMMUAJ  
CY United Kingdom  
DT Journal; Article  
FS 026 Immunology, Serology and Transplantation  
031 Arthritis and Rheumatism  
037 Drug Literature Index  
LA English  
SL English  
\*\*\*drug\*\*\*, is more effective in animal models in which cellular immunity plays a central role. Here, we studied the effect of the \*\*\*drug\*\*\* on Th1 cytokines, which are dominantly produced in this type of immune reaction, in an in vitro system and an in vivo \*\*\*model\*\*\*. We established Th1- and Th2-dominant T-cell lines, and studied the effect of TAK-603 on their cytokine production. Th1 cell lines were \*\*\*BALB\*\*\* /c mouse allo-reactive T cells and C57BL mouse mite antigen-reactive T cells, and the Th2 cell line was \*\*\*BALB\*\*\* /c mouse ovalbumin-reactive T cells.  
TAK-603 suppressed the production of Th1 cytokines [interferon-gamma (IFN-gamma.) and interleukin-2 (IL-2)] and not that of Th2 cytokines (IL-4, IL-5) in these cell lines. Furthermore, selective suppression of Th1 cytokine production was also observed in the T-cell clones obtained from the ovalbumin-reactive T-cell line. To investigate the effect on cytokine production in animal models of \*\*\*arthritis\*\*\*; we analysed the expression of cytokine messenger RNA using reverse transcription-polymerase chain reaction in adjuvant \*\*\*arthritis\*\*\* rats, Th1-dominant cytokine production was observed both in the joint and the spleen, and the time-course paralleled the progression of \*\*\*arthritis\*\*\*. On the other hand, in type-II collagen-induced \*\*\*arthritis\*\*\*, in which TAK-603 has little effect, Th1-dominant cytokine production was not observed and Th2 cytokines were shown to be

more important. The adjuvant \*\*\*arthritis\*\*\* rats treated with TAK-603 (6.25 mg/kg/day, per os) showed significantly lower cytokine mRNA expression both locally and systemically. These data suggest that TAK-603 selectively suppresses Th1 cytokine production, which is consistent with its effect on cellular immunity in animal models.

L25 ANSWER 14 OF 36 MEDLINE  
AN 96164593 MEDLINE  
DN 96164593  
TI TNF/IL-1-inducible protein TSG-6 potentiates plasmin inhibition by inter-alpha-inhibitor and exerts a strong anti-inflammatory effect in vivo.  
AU Wisniewski H G; Hua J C; Poppers D M; Naim D; Vilcek J; Cronstein B N  
CS Department of Microbiology, Kaplan Cancer Center, New York University Medical Center, NY 10016, USA.  
NC R35 CA49731 (NCI)  
AR/AL 41911 (NIAMS)  
AR/AL 1949 (NIAMS)  
+  
SO JOURNAL OF IMMUNOLOGY, (1996 Feb 15) 156 (4) 1609-15.  
Journal code: JIFB. ISSN: 0022-1767.  
CY United States  
DT Journal; Article; (JOURNAL ARTICLE)  
LA English  
FS Abridged Index Medicus Journals; Priority Journals; Cancer Journals  
EM 199605  
AB TNF-stimulated gene 6 (tsg6), encoding a 35-kDa secretory glycoprotein is induced in fibroblasts, chondrocytes, synovial cells, and mononuclear cells by the proinflammatory cytokines TNF-alpha and IL-1, or by LPS. Large amounts of TSG-6 protein were found in synovial fluids of patients with \*\*\*rheumatoid\*\*\* \*\*\*arthritis\*\*\*. TSG-6 protein forms a stable complex with components of the serine protease inhibitor, inter-alpha-inhibitor (I alpha I). In this work, we show that TSG-6 potentiates the inhibitory effect of I alpha I on the protease activity of plasmin. The plasmin/plasminogen activator system is important in the protease network associated with inflammation. To test the hypothesis that through their cooperative inhibitory effect on plasmin TSG-6 and I alpha I can modulate the protease network and thus inhibit inflammation, we

examined the effect of TSG-6 on experimentally induced inflammation. Human recombinant TSG-6 protein showed a potent anti-inflammatory activity in the murine air pouch \*\*\*model\*\*\* of carrageenan- or IL-1-induced acute inflammation. The inhibitory effect of locally administered TSG-6 on the IL-1-induced cellular infiltration was comparable with that of systemic dexamethasone treatment. Two mutant TSG-6 proteins with single amino acid substitutions close to the N terminus showed a complete or partial loss of anti-inflammatory activity. The anti-inflammatory effect of the TNF/IL-1-inducible TSG-6 protein, along with its ability to inhibit protease action through interaction with I alpha I, suggests that TSG-6 production during inflammation is part of a negative feedback loop operating through the protease network.

L25 ANSWER 15 OF 36 MEDLINE  
AN 96193613 MEDLINE  
DN 96193613  
TI The effect of leukotriene synthesis inhibitors in models of acute and chronic inflammation.  
AU Nickerson-Nutter C L; Medvedeff E D  
CS Bayer Corporation, New Haven, Connecticut, USA.  
NC AR-31133 (NIAMS)  
SO ARTHRITIS AND RHEUMATISM, (1996 Mar) 39 (3) 515-21.  
Journal code: 90M. ISSN: 0004-3591.  
CY United States  
DT Journal; Article; (JOURNAL ARTICLE)  
LA English  
FS Abridged Index Medicus Journals; Priority Journals  
EM 199607  
AB OBJECTIVE: To assess the efficacy of leukotriene synthesis inhibitors, alone and in combination with a nonsteroidal antiinflammatory \*\*\*drug\*\*\*, as potential treatments for \*\*\*rheumatoid\*\*\* \*\*\*arthritis\*\*\* (RA), using the mouse air pouch \*\*\*model\*\*\* and the collagen-induced \*\*\*arthritis\*\*\* (CIA) \*\*\*model\*\*\*. METHODS: Two selective leukotriene synthesis inhibitors, Bay x 1005 and Bay y 1015, were compared with zileuton in terms of their ability to decrease exudate volume, cell infiltration, and leukotriene B4 (LTB4) production in response to zymosan injection in the mouse air pouch \*\*\*model\*\*\*. The mouse CIA \*\*\*model\*\*\* was used to assess the effect of leukotriene synthesis inhibitors in a \*\*\*model\*\*\* of chronic inflammation. Bay y 1015 and

Bay x 1005, and the cyclooxygenase inhibitor naproxen, were evaluated individually and in combination, for their antiarthritic potency in the mouse CIA \*\*\*model\*\*\*. RESULTS: The results indicate that zileuton, Bay x 1005, nor Bay y 1015 inhibited exudate production. All 3 compounds decreased LTB4 levels in be air pouch, with Bay y 1015 being the most effective. Cell infiltration was significantly decreased with Bay x 1005, but the degree of this decrease did not appear to correlate with LTB4 levels. No inhibition of \*\*\*arthritis\*\*\* was observed with any compound administered alone. In contrast, a significant inhibition of CIA was observed in animals that received both naproxen and either Bay y 1015 or Bay x 1005. CONCLUSION: Inhibitors of both cyclooxygenase and leukotriene synthesis in combination may be a more effective treatment of RA than either class of inhibitors alone.

L25 ANSWER 16 OF 36 MEDLINE  
AN 96331229 MEDLINE  
DN 96331229  
TI \*\*\*Therapeutic\*\*\* effect of the anti-Fas antibody on \*\*\*arthritis\*\*\* in HTLV-1 tax transgenic mice.  
AU Fujiwara K; Asahara H; Okamoto K; Aono H; Hasunuma T; Kobata T; Iwakura Y; Yonchura S; Sumida T; Nishioka K  
CS Division of Rheumatology and Immunology, Institute of Medical Science, St. Marianna University School of Medicine, Japan.  
SO JOURNAL OF CLINICAL INVESTIGATION, (1996 Jul 15) 98 (2) 271-8.  
Journal code: HS7. ISSN: 0021-9738.  
CY United States  
DT Journal; Article; (JOURNAL ARTICLE)  
LA English  
FS Abridged Index Medicus Journals; Priority Journals; Cancer Journals  
EM 199611  
AB We have recently demonstrated Fas-mediated apoptosis in the synovium of patients with \*\*\*rheumatoid\*\*\* \*\*\*arthritis\*\*\* (RA) and suggested that it may be one factor responsible for the regression of RA. To examine whether the induction of apoptosis caused by anti-Fas mAb may play a potential role as a new \*\*\*therapeutic\*\*\* strategy for RA, we investigated the effect of anti-Fas mAb (RK-8) on synovitis in an

animal  
 \*\*\*model\*\*\* of RA, the human T cell leukemia virus type I (HTLV-1) tax transgenic mice. We report here that administration of anti-Fas mAb into mice intra-articularly improved the paw swelling and \*\*\*arthritis\*\*\* within 48 h. Immunohistochemical study and in vitro culture studies showed that 35% of synovial fibroblasts, 75% of mononuclear cells, and some of polymorphonuclear leukocytes infiltrating in synovium underwent apoptosis by anti-Fas mAb. In situ nick end labeling analysis and electron microscope analysis clearly showed that many cells in synovium were induced apoptosis by anti-Fas mAb administration. However, local administration of anti-Fas mAb did not produce systemic side effects. Results demonstrated that administration of anti-Fas mAb in arthritic joints of the HTLV-1 tax transgenic mice produced improvement of \*\*\*arthritis\*\*\*. These findings suggest that local administration of anti-Fas mAb may represent a useful \*\*\*therapeutic\*\*\* strategy for proliferative synovitis such as RA.

L25 ANSWER 17 OF 36 MEDLINE DUPLICATE  
 3 AN 95367064 MEDLINE  
 DN 95367064  
 TI The antiinflammatory effects of an adenosine kinase inhibitor are mediated by adenosine.  
 AU Cronstein B N; Naime D; Firestein G  
 CS New York University Medical Center, New York, NY, USA.  
 NC AR-10949 (NIAMS)  
 HL-19721 (NHLBI)  
 M01-RR-00096 (NCRRL)  
 +  
 SO ARTHRITIS AND RHEUMATISM, (1995 Aug) 38 (8) 1040-5.  
 Journal code: 90M. ISSN: 0004-3591.  
 CY United States  
 DT Journal Article; (JOURNAL ARTICLE)  
 LA English  
 FS Abridged Index Medicus Journals; Priority Journals  
 EM 199511  
 AB OBJECTIVE. The acute antiinflammatory effects of methotrexate are mediated, at least in part, by increased extracellular adenosine concentrations at inflamed sites. This observation suggests that other agents that increase extracellular adenosine concentrations might also reduce inflammation. Since adenosine can be rapidly taken up by cells,

as phosphorylated by adenosine kinase, and maintained intracellularly adenine nucleotides, we investigated whether a potent inhibitor of adenosine kinase, GP-1-515, could increase exudate adenosine concentration and thereby diminish inflammation in the murine air pouch \*\*\*model\*\*\* of inflammation. METHODS. We studied the effect of various oral doses of GP-1-515 on carrageenan-induced inflammation in air pouches induced on \*\*\*BALB\*\*\* /c mice. Adenosine concentration in pouch exudates was determined by high performance liquid chromatography, and inflammation was determined by leukocyte counts in the exudate fluid. RESULTS. There was a greater concentration of adenosine in the pouch exudates of animals treated with GP-1-515 than of those treated with saline ( $P < 0.002$ ). GP-1-515 inhibited, in a dose-dependent manner ( $P < 0.01$ ), leukocyte accumulation in the murine air pouch in response to carrageenan. Inhibition of inflammation by GP-1-515 in this \*\*\*model\*\*\* depended upon increased adenosine concentration in the inflamed pouch since injection of adenosine deaminase into the air pouch with the carrageenan completely reversed the antiinflammatory effects of GP-1-515 at all doses of GP-1-515 tested. Moreover, as previously demonstrated, the antiinflammatory effects of adenosine were mediated via occupancy of adenosine A2 receptors, since the specific adenosine A2 receptor antagonist 3,7-dimethyl-1-propargylxanthine, but not the A1 receptor antagonist 8-cyclopentyl-dipropylxanthine, completely reversed the antiinflammatory effects of GP-1-515. GP-1-515 also decreased tumor necrosis factor alpha levels in the air pouch exudates by 51%, most likely as a result of the direct action of adenosine on macrophages. CONCLUSION. These results indicate that the antiinflammatory actions of GP-1-515 are mediated by adenosine. The development of agents that promote adenosine release at sites of inflammation is a novel strategy for the treatment of inflammatory diseases such as \*\*\*rheumatoid\*\*\* \*\*\*arthritis\*\*\*.

L25 ANSWER 18 OF 36 MEDLINE  
 AN 95132631 MEDLINE

DN 95132631  
 TI Leukotriene B4 plays a critical role in the progression of collagen-induced \*\*\*arthritis\*\*\*  
 AU Griffiths R J; Pettipher E R; Koch K; Farrell C A; Breslow R; Conklyn M J; Smith M A; Hackman B C; Wimberly D J; Milici A J, et al  
 CS Central Research Division, Pfizer Inc., Groton, CT 06340.  
 SO PROCEEDINGS OF THE NATIONAL ACADEMY OF SCIENCES OF THE UNITED STATES OF AMERICA, (1995 Jan 17) 92 (2) 517-21.  
 Journal code: PV3. ISSN: 0027-8424.  
 CY United States  
 DT Journal Article; (JOURNAL ARTICLE)  
 LA English  
 FS Priority Journals; Cancer Journals  
 EM 199504  
 AB Leukotriene B4 (LTB4) is a product of the 5-lipoxygenase arachidonic acid metabolism. LTB4 is a potent chemotactic factor for neutrophils and has been postulated to play an important role in a variety of pathological conditions including \*\*\*rheumatoid\*\*\* \*\*\*arthritis\*\*\* (RA), psoriasis, and inflammatory bowel disease. The role of LTB4 in such diseases has not yet been defined but in this paper we provide direct evidence that LTB4 plays a critical role in a murine \*\*\*model\*\*\* of RA. CP-105,696, (+)-1-(3S,4R)-[3-(4-phenylbenzyl)-4-hydroxycyclohexan-7-yl]cyclopentane carboxylic acid, is an LTB4 receptor antagonist that inhibits LTB4 binding to human neutrophil membranes with an IC50 of 3.7 nM and inhibits LTB4-induced chemotaxis of these cells with an IC50 of 5.2 nM. CP-105,696 inhibits LTB4-induced neutrophil influx in mouse skin when administered orally with an ED50 of 4.2 mg/kg. CP-105,696 had a dramatic effect on both the clinical symptoms and histological changes of murine collagen-induced \*\*\*arthritis\*\*\* when administered at doses of 0.3-10 mg/kg. Inhibition was not associated with suppression of the humoral immune response to collagen and was equally effective if \*\*\*drug\*\*\* treatment was commenced just prior to the onset of \*\*\*arthritis\*\*\* or throughout the experiment. These results suggest that LTB4 receptor antagonists may be effective \*\*\*therapeutic\*\*\* agents for the treatment of RA.

L25 ANSWER 19 OF 36 EMBASE COPYRIGHT 2000  
 ELSEVIER SCI. B.V.

- AN 95238645 EMBASE  
DN 1995238645  
TI D-penicillamine-induced autoantibodies in a mouse  
\*\*\*model\*\*\*  
AU Brink R.; Tenenbaum G.; Blank M.; Shoenfeld Y.; Barzilai D.; Bloch K.; Vardi P.  
CS Pediatric Rheumatology, Department of Pediatrics, Rambam Medical Center, Haifa, Israel  
SO Clinical and Experimental Rheumatology, (1995) 13/4 (483-488).  
ISSN: 0392-856X CODEN: CERHDP  
CY Italy  
DT Journal; Article  
FS 026 Immunology, Serology and Transplantation  
031 Arthritis and Rheumatism  
030 Pharmacology  
037 Drug Literature Index  
LA English  
SL English  
AB Objective. We have previously shown that the administration of D-penicillamine (D-PEN) to patients with \*\*\*rheumatoid\*\*\*  
\*\*\*arthritis\*\*\* induces circulating insulin autoantibodies (INSAAB). In order to gain further insight into such immune responses, we measured a battery of circulating autoantibodies in 4 strains of mice receiving D-PEN: C57BL/KsJ, \*\*\*BALB\*\*\* /c, C3H/HeJ, and C57BL/6. These rodents groups differ in their degree of susceptibility to streptozotocin (STZ)-induced immune diabetes (SIND), which is high in the first strains, and mild and nil in the third and fourth, respectively.  
Methods. Randomly assigned animals from each group were given a weekly subcutaneous (SC) injection of either D-PEN 1 mg, D-PEN 3 mg, or solvent (PBS) for a period of 4 weeks. Serum levels of antibodies to insulin, single stranded DNA (ssDNA), thyroglobulin, and cardiolipin were measured weekly. Results. Only the C57BL/KsJ and C3H/HeJ mice reacted to D-PEN administration. When compared to the pre-treated and solvent-treated mice, D-PEN 1 mg, and to a lesser degree D-PEN 3 mg, induced elevation of antibodies to insulin and to ssDNA in C57BL/KsJ mice ( $p < 0.001$ ), while only ssDNA antibodies were detected in the C3H/HeJ mice ( $p < 0.0001$  for D-PEN 1 mg,  $p < 0.05$  for D-PEN 3 mg). D-PEN had no effect on the level of antibodies to cardiolipin or to thyroglobulin in any of the mice. Conclusions. This study showed that D-PEN induces an antigen(s)-specific humoral response only
- in mice already inherently prone to autoimmunity. This \*\*\*model\*\*\* suggests that the activation of autoimmunity by environmental factors is probably facilitated by genetic background, and might partly explain the diversity of autoimmune manifestations in D-PEN treated patients.  
L25 ANSWER 20 OF 36 EMBASE COPYRIGHT 2000  
ELSEVIER SCI B.V.  
AN 95260650 EMBASE  
DN 1995260650  
TI Antigen-specific B cells present cartilage proteoglycan (aggrecan) to an autoreactive T cell hybridoma derived from a mouse with proteoglycan-induced \*\*\*arthritis\*\*\*  
AU Brennan F.R.; Mikecz K.; Buzas E.I.; Ragasa D.; Cs-Szabo G.; Negroiu G.; Giant T.T.  
CS Department Biochemistry, Rush-Presbyterian-St Luke's Med. Ctr, 1653 West Congress Parkway, Chicago, IL 60612, United States  
SO Clinical and Experimental Immunology, (1995) 101/3 (414-421).  
ISSN: 0009-9104 CODEN: CEXIAL  
CY United Kingdom  
DT Journal; Article  
FS 005 General Pathology and Pathological Anatomy  
026 Immunology, Serology and Transplantation  
029 Clinical Biochemistry  
031 Arthritis and Rheumatism  
037 Drug Literature Index  
LA English  
SL English  
AB Cartilage proteoglycan (aggrecan)-induced polyarthritis in \*\*\*BALB\*\*\* /c mice is characterized by chronic inflammation and destruction of joint tissues similar to that observed in human \*\*\*rheumatoid\*\*\*  
\*\*\*arthritis\*\*\*. The immunization of mice with fetal human proteoglycan (PG) elicits specific antibodies to the immunizing antigen of which a population cross-reacts with native mouse PG. This (auto)antibody production is immediately followed by an explosive proliferation of autoreactive T cells, suggesting that PG-specific B cells may participate in antigen presentation of PG to autoreactive T cells. We therefore isolated B cells from the spleens and lymph nodes of PG-immunized mice and examined their ability to present PG to a PG-specific T cell hybridoma.  
The antigen-specific T cell responses elicited by B cells from PG-immunized mice (both arthritic and clinically asymptomatic) were markedly higher than those of non-immune mice and keyhole limpet
- haemocyanin (KLH)-immunized mice, and these B cells could present low PG concentrations. Levels of B cell presentation corresponded with the serum levels of PG-specific antibodies, implying that these B cells were presenting the PG specifically via their surface immunoglobulin. This B cell-T cell interaction was strongly dependent on MHC class II/T cell receptor (TCR), LFA-1/intercellular adhesion molecule-1 (ICAM-1) and CD28/B7 interactions, as antibodies to Ia, ICAM-1 and B7.2 (but not to B7.1) markedly reduced presentation. These data indicate that PG-specific B cells may play an essential role in governing the development of PG-induced \*\*\*arthritis\*\*\*.  
L25 ANSWER 21 OF 36 MEDLINE  
AN 97005204 MEDLINE  
DN 97005204  
TI \*\*\*Therapeutic\*\*\* effects of antibodies against adhesion molecules in murine collagen type II-induced \*\*\*arthritis\*\*\*  
AU Zeidler A.; Brauer R.; Thoss K.; Bahnert J.; Heinrichs V.; Jablonski-Westrich D.; Wroblewski M.; Rebstock S.; Hamann A.  
CS Abt. f. Immunologie, Universitätsklinikum Eppendorf, Hamburg, F.R.G.  
SO AUTOIMMUNITY, (1995) 21 (4) 245-52.  
Journal code: ASH. ISSN: 0891-6934.  
CY Switzerland  
DT Journal; Article; (JOURNAL ARTICLE)  
LA English  
FS Priority Journals  
EM 199702  
EW 19970204  
AB Adhesion molecules play important roles in immune reactions and inflammatory processes and may constitute attractive targets for immunomodulatory approaches. In this study, blocking mAbs against a series of adhesion molecules were tested for their \*\*\*therapeutic\*\*\* effect on developing \*\*\*arthritis\*\*\* in a mouse \*\*\*model\*\*\*. MABs were given for a period of 4 weeks at the time of expected incidence of visible disease symptoms, i.e. 4 weeks after priming with collagen type II. A significant reduction of incidence down to values of 13% and 29% of the controls was obtained with mAbs against CD44 and alpha 4-integrin, respectively, during an observation time of 13 weeks. MABs against CD4 and LFA-1 resulted only in weaker, non-significant effects or a delay in the

incidence. MAbs against other molecules including L-selectin, ICAM-1 or VCAM-1 were not effective. The development of antibodies against collagen type II, collagen type I, proteoglycans and the immunogen, bovine collagen type II was affected by mAb treatment to a different extent. In this case, the anti CD4 mAb was the most effective, followed by the anti alpha 4-antibodies in most cases, whereas anti CD44 showed less clear effects on the development of humoral responses. In a skin delayed type hypersensitivity \*\*\*model\*\*\* analyzed for comparison, mAbs against LFA-1/ICAM-1 and alpha 4-integrin showed the largest effects on ear swelling. These data show that mAbs against several adhesion molecules are able to block selectively distinct aspects of immune reactions, and that CD44 and alpha 4-integrins could be promising targets for an immunotherapy of \*\*\*rheumatoid\*\*\* arthritis\*\*\* with receptor-interfering agents.

L25 ANSWER 22 OF 36 EMBASE COPYRIGHT 2000  
ELSEVIER SCI B.V.  
AN 94357272 EMBASE  
DN 1994357272

TI Induction of lupus-associated autoantibodies in \*\*\*BALB\*\*\* /c mice by intraperitoneal injection of pristane.

AU Satoh M.; Reeves W.H.  
CS Division of Rheumatology/Immunology, 932 FLOB, University of North Carolina, Chapel Hill, NC 27599-7280, United States  
SO Journal of Experimental Medicine, (1994) 180/6 (2341-2346).  
ISSN: 0022-1007 CODEN: JEMEA

CY United States  
DT Journal, Article  
FS 026 Immunology, Serology and Transplantation  
037 Drug Literature Index  
LA English  
SL English  
AB Intraperitoneal injection of pristane (2,6,10,14 tetramethylpentadecane) is a standard technique for obtaining monoclonal antibody-enriched ascitic fluid. However, pristane also induces plasmacytomas and an erosive

\*\*\*arthritis\*\*\* resembling \*\*\*rheumatoid\*\*\*  
\*\*\*arthritis\*\*\* in \*\*\*BALB\*\*\* /c mice, probably as a consequence of enhanced interleukin 6 production. We report here that the production of autoantibodies

characteristic of systemic lupus erythematosus (SLE) is a further consequence of injecting pristane in \*\*\*BALB\*\*\* /c mice.

Anti-Su antibodies appeared as early as 1-2 mo after a single injection of 0.5 ml pristane, followed by anti-U1RNP and anti-Sm antibodies after 2-4 mo. Within 6 mo of pristane injection, 9 of 11 \*\*\*BALB\*\*\* /c mice had developed anti-Su, anti-U1RNP, anti-U2RNP, anti-Sm, and possibly anti-U5RNP antibodies. Autoantibodies were not produced by 20 \*\*\*BALB\*\*\* /c mice of the same age and sex that were not injected with pristane.

Thus, autoantibodies characteristic of lupus were induced in mice that are not usually considered to be genetically susceptible to the disease. The induction of autoantibodies associated with SLE by pristane may be relevant to understanding the role of abnormal cytokine production in autoantibody production and the pathogenesis of autoimmune disease. Furthermore, the induction of high titer autoantibodies by pristane dictates caution in the use of ascitic fluid as a source of monoclonal antibodies, since the polyclonal autoantibodies induced by pristane may copurify with the monoclonal antibody secreted by an injected hybridoma.

L25 ANSWER 23 OF 36 MEDLINE  
AN 95043628 MEDLINE  
DN 95043628

TI Cartilage contribution to gender differences in joint disease progression.

A study with rat articular cartilage.  
AU Labre J P; Da Silva J A; Moore A R; James I T; Scott D L; Willoughby D A

CS Department of Experimental Pathology, St Bartholomew's Hospital Medical College, London, U.K.  
SO CLINICAL AND EXPERIMENTAL RHEUMATOLOGY, (1994 Jul-Aug) 12 (4) 401-8.  
Journal code: DFA. ISSN: 0392-856X.

CY Italy  
DT Journal, Article; (JOURNAL ARTICLE)  
LA English  
FS Priority Journals  
EM 199502

AB OBJECTIVE. \*\*\*Rheumatoid\*\*\* arthritis\*\*\* is associated with a worse prognosis in females and is influenced by sex hormone changes.

Similar observations in osteoarthritis support the hypothesis that gender differences in cartilage make a hitherto unrecognized contribution

to gender differences in \*\*\*arthritis\*\*\*. The aim of the present study was to investigate potential gender differences in articular cartilage biochemistry, metabolism and response to inflammatory mediators. METHODS.

Femoral head cartilages from age-matched male and female Wistar rats were analysed for the water, glycosaminoglycan, hydroxyproline and collagen

crosslink contents. Proteoglycan loss and synthesis were assessed in vitro, and in the presence and absence of serum and interleukin-1.

An in vivo \*\*\*model\*\*\* of inflammation-induced cartilage degradation was employed to investigate gender differences in cartilage susceptibility to

erosion caused by granulomatous tissue. RESULTS. Articular cartilage from

male Wistar rats presented higher levels of both proteoglycan and collagen and showed a lower spontaneous glycosaminoglycan loss and higher proteoglycan synthesis in vitro than cartilage from females.

Proteoglycan synthesis from female, but not male, cartilage was significantly stimulated by foetal calf serum. Female cartilage was more

sensitive to IL-1 inhibition of proteoglycan synthesis while the opposite was observed in IL-1-induced proteoglycan loss. Female cartilage was more susceptible to granuloma-induced degradation than male when implanted into

female mice, but no differences were observed between male and female cartilage implanted in male mice. CONCLUSION. These results demonstrate important gender differences in cartilage biochemistry, metabolism and susceptibility to inflammatory mediators which may have important consequences for the joint destruction in \*\*\*arthritis\*\*\* and support

a role for hormone \*\*\*therapy\*\*\*.

L25 ANSWER 24 OF 36 EMBASE COPYRIGHT 2000  
ELSEVIER SCI B.V. DUPLICATE 4  
AN 94268002 EMBASE  
DN 1994268002

TI Suppression of autoimmune responses and inflammatory events by leflunomide

in an animal \*\*\*model\*\*\* for \*\*\*rheumatoid\*\*\* arthritis\*\*\*.  
AU Glant T T; Mikecz K; Brennan F.; Negroiu G.; Bartlett R.R.  
CS Department of Biochemistry, Rush Med Univ Rush-Presbyterian-St. Luke's Medical Center, 1653 West Congress Parkway, Chicago, IL 60612, United States



- SO Agents and Actions, (1994) 41/SPEC. ISS. II (C267-C270).  
ISSN: 0065-4299 CODEN: AGACBH  
CY Switzerland  
DT Journal; Conference Article  
FS 026 Immunology, Serology and Transplantation  
030 Pharmacology  
031 Arthritis and Rheumatism  
037 Drug Literature Index  
LA English  
SL English  
AB The effect of leflunomide (HWA-486) was tested in proteoglycan-induced  
\*\*\*arthritis\*\*\* in an autoimmune animal \*\*\*model\*\*\*  
showing many similarities to human \*\*\*rheumatoid\*\*\* \*\*\*arthritis\*\*\* and ankylosing spondylitis. The development of the disease in genetically susceptible \*\*\*BALB\*\*\* /c mice is dependent upon the expression of both cell-mediated and humoral immunity to host mouse cartilage proteoglycan.  
Arthritic and control (non-arthritic) animals were treated with 35 mg leflunomide/kg body weight/day for 12 weeks to suppress inflammatory events and antibody titers. Leflunomide suppressed acute inflammatory events, protected animals from new inflammatory episodes and acute exacerbations, slightly reduced the stiffness in joints and blocked the degradation of cartilage. The suppressive effect of leflunomide in proteoglycan-induced \*\*\*arthritis\*\*\* is due primarily to the suppression of autoantibody formation.
- L25 ANSWER 25 OF 36 MEDLINE  
AN 95044819 MEDLINE  
DN 95044819  
TI Prevention of spontaneous polyarthritis in NZB/KN mice by treatment with a novel thiazole derivative, SM-8849.  
AU Nishikaku F, Nakamura K, Kashiwazaki S, Koga Y  
CS Research Laboratories, Sumitomo Pharmaceuticals Company, Osaka, Japan.  
SO DRUGS UNDER EXPERIMENTAL AND CLINICAL RESEARCH, (1994) 20 (3) 85-92.  
Journal code: EBM. ISSN: 0378-6501.  
CY Switzerland  
DT Journal; Article; (JOURNAL ARTICLE)  
LA English  
FS Priority Journals  
EM 199502  
AB NZB/KN mice spontaneously develop polyarthritis, characterized by infiltration of inflammatory cells into the synovium and destructive damage of articular cartilage and bone. This study was performed to elucidate the effects of a novel thiazole derivative (SM-8849, (4-[1-(2-fluoro-4-biphenyl)-ethyl]-2-methylamino thiazole) in comparison with the cyclooxygenase inhibitor, indomethacin, on disease development and immune disorders in NZB/KN mice. Mice were treated with SM-8849 (50 mg/kg) or indomethacin (2 mg/kg), starting from two months of age, for seven months. Indomethacin had no inhibitory effect on joint lesions in this \*\*\*model\*\*\*. In contrast, SM-8849 was effective in arresting the progression of \*\*\*arthritis\*\*\*, as confirmed by histologic and radiographic studies. Moreover, SM-8849, but not indomethacin, suppressed \*\*\*rheumatoid\*\*\* factor production. In addition, the population of CD5+ B cells in the peritoneal cavity and spleen was reduced with SM-8849 treatment. These findings suggest that NZB/KN mice are of use in the evaluation of intrinsic antiarthritic activity, independently of cyclooxygenase inhibition. Additionally, the \*\*\*therapeutic\*\*\* of SM-8849 is strongly suggested by its efficacy in this \*\*\*model\*\*\*.
- L25 ANSWER 26 OF 36 MEDLINE  
AN 93249323 MEDLINE  
DN 93249323  
TI Protective effect of androgens against inflammation induced cartilage degradation in male rodents.  
AU Da Silva J A, Larbre J P, Spector T D, Perry L A, Scott D L, Willoughby D A  
CS Department of Experimental Pathology, St Bartholomew's Hospital Medical College, London, United Kingdom.  
SO ANNALS OF THE RHEUMATIC DISEASES, (1993 Apr) 52 (4) 285-91.  
Journal code: 62W. ISSN: 0003-4967.  
CY ENGLAND; United Kingdom  
DT Journal; Article; (JOURNAL ARTICLE)  
LA English  
FS Priority Journals  
EM 199308  
AB OBJECTIVES-- \*\*\*Rheumatoid\*\*\* \*\*\*arthritis\*\*\* (RA) is a disease which predominantly affects women. Interestingly, low serum androgen levels and clinical improvement with androgen replacement have been reported in male patients. The aetiopathogenic role of sex hormones in \*\*\*arthritis\*\*\* and their potential long term effects on joint destruction and disability remains unclear. This study was designed to investigate the potential influence of sex hormones on inflammation induced cartilage degradation in male rodents.
- METHODS--An in vivo \*\*\*model\*\*\* of cotton wrapped cartilage implants was used to assess the effects of androgen, oestradiol, and progesterone on inflammation induced cartilage degradation, and in vitro techniques were used to investigate the direct actions on cartilage metabolism and cytokine production in male animals. RESULTS--Orchidectomy accelerated cartilage damage which was reversed by replacement of physiological levels of androgens. Granulomatous tissue from castrated male rodents produced higher amounts of interleukin 1. Sex hormones reduced spontaneous proteoglycan loss in vitro but did not interfere with the effects of interleukin 1 on cultured cartilage.
- CONCLUSIONS--Androgens appear to protect cartilage from inflammation induced breakdown in male animals. These results support a pathogenic role for hypoadrogenism in \*\*\*rheumatoid\*\*\* \*\*\*arthritis\*\*\* and suggest that long term androgen replacement may help prevent joint damage and disability.
- L25 ANSWER 27 OF 36 MEDLINE  
AN 93058997 MEDLINE  
DN 93058997  
TI Pristane induced \*\*\*arthritis\*\*\* in mice. IV. Immunotherapy with monoclonal antibodies directed against lymphocyte subsets.  
AU Levitt N G, Fernandez-Madrid F, Wooley P H  
CS Department of Internal Medicine, Wayne State University School of Medicine, Detroit, MI.  
SO JOURNAL OF RHEUMATOLOGY, (1992 Sep) 19 (9) 1342-7.  
Journal code: JWX. ISSN: 0315-162X.  
CY Canada  
DT Journal; Article; (JOURNAL ARTICLE)  
LA English  
FS Priority Journals  
EM 199302  
AB Pristane induced \*\*\*arthritis\*\*\* (PIA), a seropositive experimental disease \*\*\*model\*\*\* in mice, was used to investigate the influence of immunotherapy with monoclonal antibodies against lymphocyte subsets. Treatment with L3T4, a monoclonal antibody specific for murine CD4+ T cells, significantly reduced the incidence of pristane \*\*\*arthritis\*\*\*, and delayed the disease onset. Monoclonal antibody to Lyt2, the

CD8+ T cell marker, significantly reduced the levels of \*\*\*rheumatoid\*\*\*  
 factor in pristane injected animals compared with controls, but did not influence the clinical course of PIA. Our experiments demonstrate the ability of anti-CD4 antibodies to modify the course of PIA, and provide support for the hypothesis that CD4+ T lymphocytes have an important role in the pathogenesis of this experimental autoimmune \*\*\*arthritis\*\*\*  
 L25 ANSWER 28 OF 36 MEDLINE  
 AN 93003344 MEDLINE  
 DN 93003344  
 TI \*\*\*Rheumatoid\*\*\* \*\*\*arthritis\*\*\* synovial fluid enhances T cell effector functions.  
 AU Ridderstad A, Abedi-Valgerdi M, Strom H, Moller E  
 CS Department of Immunology, Arthritis Laboratories for Natural Sciences, University of Stockholm, Sweden.  
 SO JOURNAL OF AUTOIMMUNITY, (1992 Jun) 5 (3) 333-50.  
 Journal code: ADL ISSN: 0896-8411.  
 CY ENGLAND: United Kingdom  
 DT Journal; Article; (JOURNAL ARTICLE)  
 LA English  
 FS Priority Journals  
 EM 199301  
 AB \*\*\*Rheumatoid\*\*\* \*\*\*arthritis\*\*\* is a chronic autoimmune joint disease of unknown etiology. T cells are believed to be important in the pathogenesis of \*\*\*rheumatoid\*\*\* \*\*\*arthritis\*\*\* since they infiltrate the joints and express several activation markers, such as MHC class II and IL-2R. In this study we have elucidated the effect on freshly isolated T cells of \*\*\*rheumatoid\*\*\* \*\*\*arthritis\*\*\* synovial fluid (RA-SF), which contains in vivo produced cytokines and enzymes. The mouse mixed lymphocyte culture (MLC) has been used as a \*\*\*model\*\*\* and specific cytotoxicity was evaluated against 51Cr-labelled sensitive target cells. Studies have shown that RA-SF contains a B cell differentiation activity that can cross-react between the human and murine species. Here we have shown that the addition of RA-SF strongly potentiates cytotoxic activity as well as lymphokine production by allogeneic activated effector T cells. The enhanced cytotoxicity induced by RA-SF was found to be due to a combined effect of increased cytotoxic T lymphocyte (CTL) precursor frequency, measured by limiting

dilution analysis, and a more efficient killing on a per cell basis. Kinetic studies show that RA-SF must be added within 48 h after initiation of the MLC, otherwise the effect is lost. The target cell specificity of RA-SF was studied, using enriched CD4+ or CD8+ responder cells in the MLC. It was found that RA-SF could act directly on the CD8+ cells and potentiate their development to cytotoxic effector cells: this activity was not found when CD4+ responder cells were used instead. RA-SF could, on the other hand, greatly enhance IL-2 production by CD4+ responder cells. We suggest that B and T cell activity in RA-SF is important in the propagation of chronic inflammation in the joints of patients with \*\*\*rheumatoid\*\*\* \*\*\*arthritis\*\*\*  
 L25 ANSWER 29 OF 36 MEDLINE DUPLICATE  
 AN 92290784 MEDLINE  
 DN 92290784  
 TI Immunomodulation of proteoglycan-induced progressive polyarthritis by leflunomide.  
 AU Glant T T, Milteez K, Bartlett R R, Deak F, Thonar E J, Williams J M, Mattar T, Kuetner K E, Schleyerbach R  
 CS Department of Biochemistry, Rush-Presbyterian-St-Luke's Medical Center, Chicago, IL 60612.  
 NC AR 40310 (NIAMS)  
 SO IMMUNOPHARMACOLOGY, (1992 Mar-Apr) 23 (2) 105-16.  
 Journal code: GY3 ISSN: 0162-3109.  
 CY Netherlands  
 DT Journal; Article; (JOURNAL ARTICLE)  
 LA English  
 FS Priority Journals  
 EM 199209  
 AB Proteoglycan-induced \*\*\*arthritis\*\*\* is a mouse \*\*\*model\*\*\* displaying many similarities to human \*\*\*rheumatoid\*\*\* \*\*\*arthritis\*\*\* and ankylosing spondylitis which has been documented by clinical and histopathological studies. The development of the disease in genetically susceptible \*\*\*BALB\*\*\* /c mice is dependent upon the expression of both cell-mediated and humoral immunity to host mouse cartilage proteoglycan. Since both development and regression of acute inflammatory processes in joints correlate directly with the serum

antibody level to mouse cartilage proteoglycan, it is believed that these autoreactive antibodies may play a key role in the pathological mechanism of proteoglycan-induced \*\*\*arthritis\*\*\*. The treatment of arthritic animals with an immunomodulating agent (leflunomide) suppressed acute inflammatory events, protected animals from new inflammatory episodes or acute exacerbations in chronically inflamed joints and blocked pathological processes in arthritic joints, which otherwise led to progressive deformities, ankylosis and the loss of articular cartilage. We conclude that the suppressive effect of leflunomide (HWA 486) in proteoglycan-induced \*\*\*arthritis\*\*\* primarily is due to the suppression of autoantibody formation and that the \*\*\*drug\*\*\* may be a potential agent in human \*\*\*therapy\*\*\* as well. Further, we feel that this novel \*\*\*model\*\*\* of murine polyarthritis will extend further the pharmacological repertoire necessary to discover innovative antirheumatic \*\*\*drugs\*\*\*  
 L25 ANSWER 30 OF 36 MEDLINE  
 AN 91237100 MEDLINE  
 DN 91237100  
 TI Defective neutrophil function in the autoimmune mouse strain MRL/lpr.  
 AU Gresham H D, Ray C J, O'Sullivan F X  
 CS Research Service, Harry S Truman VA Medical Center, Columbia, MO 65201.  
 NC AI-23790 (NIAID)  
 SO JOURNAL OF IMMUNOLOGY, (1991 Jun 1) 146 (11) 3911-21.  
 Journal code: IFB ISSN: 0022-1767.  
 CY United States  
 DT Journal; Article; (JOURNAL ARTICLE)  
 LA English  
 FS Abridged Index Medicus Journals, Priority Journals, Cancer Journals  
 EM 199108  
 AB Patients with systemic autoimmune diseases such as SLE and \*\*\*rheumatoid\*\*\* \*\*\*arthritis\*\*\* have increased rates of morbidity and mortality caused by infection. Although this increased risk of infection has been primarily attributed to \*\*\*therapeutic\*\*\* immuno-suppression, some reports exist of defective polymorphonuclear leukocytes (PMN) function in these patients. The purpose of the present work is to investigate the recruitment of PMN phagocytic function in a murine \*\*\*model\*\*\* of autoimmunity, the MRL/lpr mouse.

PMN from

MRL/lpr, but not from congenic MRL/n mice, exhibit a marked defect in the

amplification of FcR-mediated phagocytosis stimulated by various inflammatory mediators. This defect is acquired and correlates with

the

onset of the autoimmune disease observed in this strain. In

addition,

MRL/lpr but not MRL/n PMN exhibit a defect in extravasation

into the

thioglycollate-inflamed peritoneum. Incubation of MRL/n PMN in

MRL/lpr

serum induces a defect in the amplification of PMN phagocytic

function

identical to that observed with MRL/lpr PMN. The activity in the

serum

that induces this defect is neutralized by an antibody to TGF-beta

but not

by control antibodies. Incubation of murine and human PMN with

purified

TGF-beta induces an identical defect in stimulated FcR-mediated

ingestion.

In addition, TGF-beta-treated MRL/n PMN fail to extravasate into

the

thioglycollate-inflamed peritoneum after injection into normal

MRL/n

recipient mice. In addition, direct injection of TGF-beta into

MRL/n mice

also reduces the percentage and number of PMN in the

thioglycollate-

stimulated peritoneal exudates of these mice. The defect in PMN

extravasation and phagocytic function was not caused by failure of

the

defective PMN to modulate the expression of the adhesion

molecules, Mac-1

and Mel-14. These data indicate that defects in PMN function can

be

observed in a murine \*\*\*model\*\*\* of autoimmunity and that

spontaneous

production of TGF-beta possibly may play a crucial role in the

pathogenesis of the defective PMN function in this animal

\*\*\*model\*\*\*.

L25 ANSWER 31 OF 36 EMBASE COPYRIGHT 2000

ELSEVIER SCI B.V.

AN 91249433 EMBASE

DN 1991249433

TI Gallium prevents adjuvant \*\*\*arthritis\*\*\* in rats and interferes

with

macrophage/T-cell function in the immune response.

AU Matkovic V.; Balboa A.; Clinchot D.; Whitacre C.; Zwilling B.;

Brown D.;

Weisbrode S.E.; Apseloff G.; Gerber N.

CS Department of Pharmacology, 5198 Graves Hall, Ohio State

Univ. Coll. of

Med., 333 W. 10th Avenue, Columbus, OH 43210, United States

SO Current Therapeutic Research - Clinical and Experimental,

(1991) 50/2

(255-267).

ISSN: 0011-393X CODEN: CTCEA

CY United States

DT Journal, Article

FS 026 Immunology, Serology and Transplantation

031 Arthritis and Rheumatism

030 Pharmacology

037 Drug Literature Index

LA English

SL English

AB The effect of gallium (Ga) nitrate on adjuvant \*\*\*arthritis\*\*\*

was

studied in 24 male Lewis rats randomized into three groups: (1) Ga

(30

mg/kg, then 10 mg/kg subcutaneously weekly) plus complete

Freund's

adjuvant (n = 10), (2) vehicle (trisodium citrate) plus adjuvant (n =

8),

and (3) vehicle (n = 6). Rats received Ga or vehicle on day -1 and

adjuvant on day 0. Rats treated with adjuvant plus vehicle

developed

\*\*\*arthritis\*\*\*, observed clinically in all limbs and measured by

gait

impairment, performance on a rotarod, and blinded histological

evaluation

of joints. Rats that had received Ga and adjuvant exhibited less

prominent

clinical signs and significantly decreased histopathologic changes in

joints compared with those animals that received vehicle and

adjuvant. The

effect of Ga in vitro on lymphoid cells was investigated using a

purified protein-derivative-specific T-cell line derived from Lewis

rats.

Ga completely suppressed the antigen-specific and mitogenic

proliferative

responses. The effect of Ga on MHC class II expression by murine

macrophages was also studied. Peritoneal macrophages from

\*\*\*BALB\*\*\* /c

mice were incubated with Ga after stimulation for 48 hours with

gamma-interferon to induce the expression of I-A glycoproteins. Ga

transiently reduced expression by approximately 45%. The effect of

Ga on

macrophages and T-cell suggests that this agent may be useful in

the

treatment of many autoimmune diseases and explains its protective

effect

in adjuvant \*\*\*arthritis\*\*\*.

L25 ANSWER 32 OF 36 MEDLINE

AN 89140335 MEDLINE

DN 89140335

TI Heterogeneous effects of IFN-gamma in adjuvant

\*\*\*arthritis\*\*\*

AU Jacob C O; Holoshitz J; Van der Meide P; Strober S; McDevitt

H O

CS Department of Microbiology, Stanford University School of

Medicine, CA

94305

NC AL11313 (NIAID)

AI-07757 (NIAID)

SO JOURNAL OF IMMUNOLOGY, (1989 Mar 1) 142 (5) 1500-5.

Journal code: IFB. ISSN: 0022-1767.

CY United States

DT Journal, Article; (JOURNAL ARTICLE)

LA English

FS Abridged Index Medicus Journals; Priority Journals; Cancer

Journals

EM 198906

AB In an attempt to evaluate the role of IFN-gamma in autoimmune

\*\*\*arthritis\*\*\*, we tested the effects of IFN-gamma and

anti-IFN-gamma

mAb (DB-1) in various phases of \*\*\*arthritis\*\*\* development

in a rat

\*\*\*model\*\*\* for \*\*\*rheumatoid\*\*\* \*\*\*arthritis\*\*\*; the

adjuvant

\*\*\*arthritis\*\*\* (AA) \*\*\*model\*\*\*, induced by

immunization with CFA.

In addition, the effects of IFN-gamma were tested in vitro on T cell

clones derived from rats afflicted with AA. T cell clone A2b, which

has

been shown to be arthritogenic secreted low amounts of

IFN-gamma and its

Ag-specific proliferation was inhibited by IFN-gamma. In contrast,

clone

A2c, which can inhibit the development of AA, produced high

amounts of

IFN-gamma and its proliferation was increased by IFN-gamma. In

vivo

administration of IFN-gamma 24 h before CFA caused an

enhancement of

\*\*\*arthritis\*\*\*, whereas giving IFN-gamma 24 to 48 h after

CFA

suppressed the disease. Administration of IFN-gamma between day

+4 to +12

or between day +12 to +24 increased the severity of the first phase

of the

disease, but had no effect later. Administration of DB-1 1 to 2 days

before adjuvant or between day +4 to +8 substantially decreased the

disease, whereas DB-1 given from day +12 to +24 significantly

enhanced it.

Taken together, these results illustrate the heterogeneity of

IFN-gamma in

autoimmune \*\*\*arthritis\*\*\* and suggest a rational explanation

for the

possibly conflicting reports regarding the role(s) and effects of

IFN-gamma in autoimmune processes. The multistage nature of T

cell-mediated autoimmune \*\*\*arthritis\*\*\* may be due to the

predominance of distinct T cell populations at different stages of

the

disease. The differences in the biologic activities of these T cells

may

be due to their patterns of lymphokine production.

L25 ANSWER 33 OF 36 EMBASE COPYRIGHT 2000

ELSEVIER SCI. B.V.  
AN 88091681 EMBASE  
DN 1988091681  
TI Immunopharmacological studies of new  
3-benzoyl-4-mercaptobutyric acids.  
Immunomodulating effects.  
AU Takeshita K.; Fukazawa I.; Futaki N.; Kamoo K.; Tomisawa K.;  
Osono S.;  
Aihara H.  
CS Research Center, Taisho Pharmaceutical Co. Ltd., Saitama 330,  
Japan  
SO Arzneimittel-Forschung/Drug Research, (1988) 38/4 (537-542).  
ISSN: 0004-4172 CODEN: ARZNAD  
CY Germany  
DT Journal  
FS 030 Pharmacology  
037 Drug Literature Index  
031 Arthritis and Rheumatism  
LA English  
SL German; English  
AB A number of D-penicillamine (PA) derivatives  
(3-benzoyl-4-mercaptobutyric  
acids) having acetylthio groups on an alpha or beta position of a  
carboxylic acid, were synthesized and examined for their  
immunological  
effects compared with PA. New PA derivatives suppressed  
adjuvant-induced  
\*\*\*arthritis\*\*\* (AA) in SD rats and enhanced AA in Lewis rats  
like PA.  
Suppressive effects of  
2-acetylthiomethyl-3-(4-methyl-benzoyl)propionic  
acid (compound II-3) on AA in SD rats was most potent among PA  
derivatives  
and PA. II-3 enhanced type II collagen-induced \*\*\*arthritis\*\*\*  
in rats  
more effectively than PA, and it slightly prolonged the survival  
time of  
NZBXNZW hybrid (BWF1) mice. Hemolytic plaque forming cells  
in the spleen  
cells of BDF1 and aged \*\*\*Balb\*\*\* /c mice were potentiated but  
those of  
BWF1 were suppressed by both compounds. In vitro  
experiments, both  
compounds enhanced lymphocyte transformation. On the contrary,  
II-3 had no  
effect on the acute inflammatory response, delayed type  
hypersensitivity  
and IgE antibody response. The abnormal release of lysosomal  
enzymes from  
the peritoneal macrophages of aged MRL/l mice were suppressed  
by both  
compounds. These results suggest that II-3 is an immunomodulator  
like PA  
but more effective than PA. II-3 may be clinically effective for  
\*\*\*rheumatoid\*\*\* \*\*\*arthritis\*\*\*.

L25 ANSWER 34 OF 36 EMBASE COPYRIGHT 2000

ELSEVIER SCI. B.V.  
AN 89076304 EMBASE  
DN 1989076304  
TI Long-term \*\*\*therapeutic\*\*\* study with a new antirheumatic  
\*\*\*drug\*\*\* (CGS10787B) in MRL/l Mice.  
AU Akita S.; Abe C.; Hirose S.  
CS Biological Research Laboratory, Preclinical Research  
Department, R & D  
Subdivision, Pharmaceutical Division, Ciba-Geigy Japan Ltd.,  
Takarazuka  
665, Japan  
SO International Journal of Immunotherapy, (1988) 4/3 (131-135).  
ISSN: 0255-9625 CODEN: IJIMET  
CY Switzerland  
DT Journal  
FS 026 Immunology, Serology and Transplantation  
031 Arthritis and Rheumatism  
LA English  
SL English  
AB MRL/Mp-lpr/lpr (MRL/l) mice are widely known to be poor  
inducers of  
interleukin-2 (IL-2) with low response to IL-2, and have been used  
for the  
study of systemic lupus erythematosus and \*\*\*rheumatoid\*\*\*  
\*\*\*arthritis\*\*\*. The long-term \*\*\*therapeutic\*\*\* effect of  
CGS10787B  
on the autoimmunity with lymphoproliferation in MRL/l mice was  
investigated. Mice were administered CGS10787B at doses of 25  
and 100  
mg/kg/day p.o. between 8 to 20 weeks of age. CGS10787B at a  
dose of 100  
mg/kg prevented the lymphoproliferation of spleen and some lymph  
nodes in  
MRL/l mice. There were not any obvious changes in T-cell subsets  
in  
CGS10787B-treated mice. Although CGS10787B has no effect on  
excessive  
proteinuria in MRL/l mice, CGS10787B reduced high levels of  
serum  
anti-ssDNA antibody and IgG \*\*\*rheumatoid\*\*\* factor  
dose-relatedly.  
The effect of CGS10787B on IL-2 induction in \*\*\*BALB\*\*\* /c  
mice in vivo  
and MRL/l mice in vitro was also examined. While CGS10787B  
caused a slight  
reduction of IL-2 induction in \*\*\*BALB\*\*\* /c mice, a moderate  
increase  
in IL-2 induction in MRL/l mice was demonstrated. These findings  
on the  
\*\*\*therapeutic\*\*\* effect of CGS10787B on autoimmunity,  
polyclonal  
antibody formation and IL-2 induction in MRL/l mice suggest that  
CGS10787B  
would be useful for the treatment of rheumatic disease in man.

L25 ANSWER 35 OF 36 MEDLINE

AN 87036661 MEDLINE

DN 87036661  
TI The effect of low dose chronic intermittent parental methotrexate  
on  
delayed type hypersensitivity and acute inflammation in a mouse  
\*\*\*model\*\*\*.  
AU O'Callaghan J.W.; Bretscher P.; Russell A.S.  
SO JOURNAL OF RHEUMATOLOGY, (1986 Aug) 13 (4) 710-4.  
Journal code: JWX. ISSN: 0315-162X.  
CY Canada  
DT Journal; Article, (JOURNAL ARTICLE)  
LA English  
FS Priority Journals  
EM 198702  
AB We have shown that a regimen of low dose intermittent  
methotrexate (MTX),  
\*\*\*rheumatoid\*\*\* \*\*\*arthritis\*\*\*, does have  
immunosuppressive  
effects on the induction of primary delayed type hypersensitivity in  
normal mice. This occurred even when the last MTX injection was  
4 days  
before immunization. No effect was seen on established delayed  
type  
hypersensitivity or on inflammatory responses induced by  
cartagenan or  
the Arthus reaction.  
L25 ANSWER 36 OF 36 BIOSIS COPYRIGHT 2000 BIOSIS  
AN 1986213778 BIOSIS  
DN BA81:105078  
TI FAILURE OF METHOTREXATE AND  
METHYLPREDNISOLONE TO ALTER THE CLEARANCE OF  
\*\*\*MODEL\*\*\* IMMUNE COMPLEXES.  
AU SCHRIBER L.; MULLINS W.W.JR; PLOTZ P.H.  
CS DEP. RHEUMATOLOGY, ROYAL NORTH SHORE  
HOSPITAL, ST LEONARDS, NSW 2065,  
AUSTRALIA.  
SO J RHEUMATOL, (1985 (RECD 1986)) 12 (6), 1044-1047.  
CODEN: JRHUA9. ISSN: 0315-162X.  
FS BA, OLD  
LA English  
AB We evaluated the effect of methotrexate (MTX) and  
methylprednisolone (MP)  
on reticuloendothelial system (RES) clearance of soluble  
\*\*\*model\*\*\*  
immune complexes (IC) in \*\*\*BALB\*\*\* /c mice. MTX was  
administered by  
intraperitoneal route either as a single dose (0.5 mg/kg) or as 10  
alternate day doses (0.1 or 0.5 mg/kg). MP as a single intravenous  
bolus (50 mg/kg) with normal saline used as a control. Mice were  
then  
injected IV with radiolabeled IgG anti-DNP covalently crosslinked  
IC.  
Blood radioactivity was measured over a 3 h period at which time  
organ

uptake, corrected for blood contamination, was determined.  
Clearance  
curves for each mouse were derived using the  
Marquardt-Levenberg curve  
fitting method. No significant differences in IC clearance or organ  
uptake  
were found between \*\*\*\*drug\*\*\* and control groups at any  
\*\*\*\*drug\*\*\*  
dose or time period. Our findings argue against an influence of MP  
and MTX  
on immunospecific clearance of soluble IC.

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L1 16359 S BREEDING/AB,BI  
L2 139 S L1 AND BALB/7/AB,BI  
L3 5 S L2 AND TRAIT/7/AB,BI  
L4 35308 S RHEUMATOID ARTHRITIS/AB,BI  
L5 9 S L4 AND BREED/7/AB,BI

FILE 'MEDLINE, EMBASE, BIOSIS, INPADOC, CAPLUS'  
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L6 34 S L5  
L7 21 DUP REM L6 (13 DUPLICATES REMOVED)  
L8 7 S L7 AND BREEDING/AB,BI  
L9 12601 S ARTHRITIS AND MODEL/AB,BI  
L10 3695 S L9 AND (MICE OR MOUSE)/AB,BI  
L11 20 S L10 AND PROGENY/AB,BI  
L12 9 DUP REM L11 (11 DUPLICATES REMOVED)

FILE 'MEDLINE' ENTERED AT 14:04:55 ON 25 JUL 2000  
L13 272 S RHEUMATOID ARTHRITIS AND  
SCREENING/AB,BI

L14 76 S L13 AND THERAP/7/AB,BI  
L15 9 S L14 AND MODEL/AB,BI  
L16 69950 S BALB/7/AB,BI  
L17 368 S L16 AND ARTHRITIS/AB,BI  
L18 79 S L17 AND MODEL/AB,BI  
L19 43 S L18 AND RHEUMATOID/AB,BI  
L20 0 S L19 AND SCREEN/7/AB,BI  
L21 1 S L18 AND SCREEN/7/AB,BI

FILE 'MEDLINE, EMBASE, BIOSIS, INPADOC, CAPLUS'  
ENTERED AT 14:09:35 ON 25  
JUL 2000

L22 1 S L21  
L23 125 S L19  
L24 44 S L23 AND (DRUG# OR THERAP/7/AB,BI  
L25 36 DUP REM L24 (8 DUPLICATES REMOVED)

FILE 'STNGUIDE' ENTERED AT 14:12:52 ON 25 JUL 2000

=>

---Logging off of STN---

=>  
Executing the logoff script...

=> LOG Y

COST IN U.S. DOLLARS	SINCE FILE	TOTAL
FULL ESTIMATED COST	ENTRY SESSION	
	0.00	124.84

DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)  
SINCE FILE TOTAL

CA SUBSCRIBER PRICE	ENTRY SESSION	
	0.00	-0.56

STN INTERNATIONAL LOGOFF AT 14:21:16 ON 25 JUL 2000